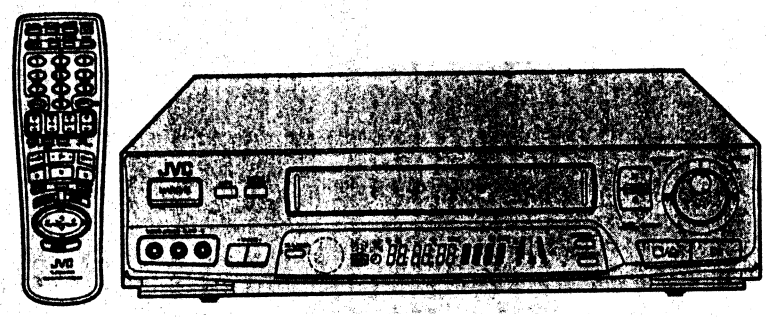
JVC

SERVICE MANUAL

HR-A630MS/J636MS



SHOWVIEW

Hi-Fi VHS PAL SECAM

SPECIFICATIONS *(The specification shown pertain specifically to the model HR-J636MS)*

GENERALES

Alimentation	: CA 220 – 240 V~, 50/60 Hz
Consommation	: 24 W
Températures	: 5°C à 40°C (Fonctionnement) –20°C à 60°C (Stockage)
Position de fonctionnement	: Seulement horizontale
Dimensions (LxHxP)	: 400 x 94 x 340 mm
Poids	: 4,3 kg
Format	: Standard VHS PAL/SECAM
Largeur de bande	: 12,65 mm
Vitesse de bande	
(VN)	: 23,39 mm/s
(LD)	: 11,70 mm/s
Durée maximale d'enregistrement	
(VN)	: 240 mn avec une cassette vidéo E-240
(LD)	: 480 mn avec une cassette vidéo E-240

VIDEO/AUDIO

Système de signal	: Signaux couleur PAL/SECAM et monochromes CCIR, 625 lignes/50 trames
Système d'enregistrement	: Système à deux fois deux têtes rotatives, balayage hélicoïdal avec combinaison de têtes vidéo DA4
Entrée	: 0,5 à 2,0 Vcc, 75 ohms, asymétrique
Sortie	: 1,0 Vcc, 75 ohms, asymétrique
Rapport signal/bruit	: 45 dB
Résolution horizontale	: 240 lignes
Gamme de fréquence	: 70 Hz à 10.000 Hz (audio normal) 20 Hz à 20.000 Hz (audio Hi-Fi)
Entrée/sortie	: Prises péritélévision à 21 broches (ENTREE/SORTIE x 1; ENTREE/DECODEUR x 1) Connecteurs RCA (ENTREE VIDEO x 1; ENTREE AUDIO x 1; SORTIE AUDIO x 1)

SYNTONISEUR

Système de syntonisation	: Syntoniseur à synthèse de fréquence
Capacité de canaux TV	: 99 positions (+ position AUX "AU")

Canaux couverts

Gamme	SECAM L		PAL B/G	
	Fréquence	Canaux	Fréquence	Canaux
VHF (LOW)	49 – 65 MHz	2 – 4	47 – 89 MHz	E2 – E4 X, Y, Z S1 – S3
VHF (HIGH)	104 – 300 MHz	5 – 10 CATV	104 – 300 MHz	E5 – E12 S1 – S20 M1 – M10 U1 – U10
Hyper	300 – 470 MHz	CATV	302 – 470 MHz	S21 – S41
UHF	470 – 862 MHz	21 – 69	470 – 862 MHz	E21 – E69

MINUTERIE

Référence de l'horloge	: Par quartz
Capacité de programmation	: Minuterie sur 1 an/8 programmes
Durée de soutien mémoire	: 60 mn

ACCESSOIRES

Accessoires fournis	: Câble d'antenne, Boîtier de télécommande à infrarouge, Pile "R6" x 2, Câble péritélévision, Adaptateur antenne

Présentation et caractéristiques modifiables sans préavis.

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6 TECHNICAL INFORMATION
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The following table lists the differing points between Models (HR-A630MS HR-A630MS(C) and HR-J636MS) in this series

	HR-A630MS	HR-A630MS(C)	HR-J636MS
ON SCREEN	×	×	○
SCENE FINDER	×	×	○
AUDIO DUBBING	×	×	○
BEST PICTURE	×	×	○
etc	×	×	○

NOTE : × NOT USED ○ USED

Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

● Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the ⚠ symbol and shaded ( ) parts are critical for safety.
   Replace only with specified part numbers.
   Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.
   Caution for continued protection against fire hazard.
   Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape 3) Spacers 5) Barrier
   2) PVC tubing 4) Insulation sheets for transistors

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

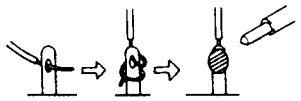


Fig. 1

7. Observe that wires do not contact heat producing parts (heat-sinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10–15 kg of force in any direction will not loosen it.

Fig. 2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)
    In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector
    In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.
    1) **Connector part number** : E03830-001
    2) **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
    3) **Replacement procedure**
    (1) Remove the old connector by cutting the wires at a point close to the connector.
    Important : Do not reuse a connector (discard it).

Fig. 3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

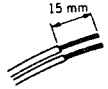


Fig. 4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

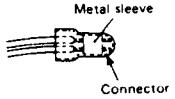


Fig. 5

(4) As shown in Fig. 6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

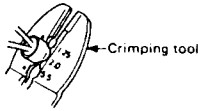


Fig. 6

(5) Check the four points noted in Fig. 7.

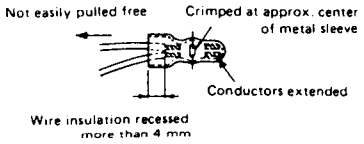
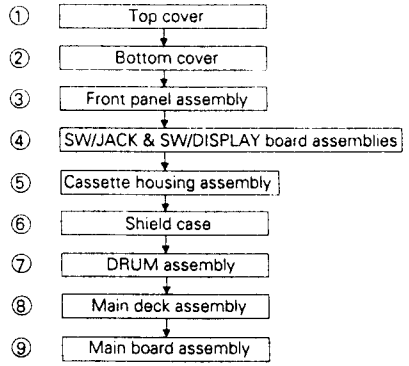

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig. 7

SECTION 1
DISASSEMBLY

1.1 DISASSEMBLY FLOW CHART

This flowchart lists shows the disassembly steps for the cabinet parts and P.C. boards in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order. Bend,route and dress the flat cables as they were originally.



1.2 HOW TO READ THE DISASSEMBLY AND ASSEMBLY

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	TOP COVER	D1	4(S1)	
②	BOTTOM COVER	D2	(S2), 7(L1)	
③	FRONT PANEL ASSEMBLY	D3	7(L2),*JOG/SHUTTLE (J636MS)	<NOTE 1>
④	SW/JACK & SW/DISPLAY BOARD ASSEMBLIES	D4	12(L3),*CN1201, *CN1204	<NOTE 2>
⑤	CASSETTE HOUSING ASSEMBLY	D5	2(S3),2(S4)	<NOTE 3>
⑥	SHIELD CASE	D6	2(S5),*CN1	

(1) (2) (3) (4) (5)

(1) Order of steps in Procedure
When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) NO. of parts Figures.
(2) Part name to be removed or installed.
(3) Fig.No. showing procedure or part location
(4) Indentification of part to be removed,unhooked,unlocked, released,unpluged,unclamped or unsoldered. P = Spring, W = Washer, S = Screw, L = Locking tab, * = Unhook,unlock, release,unplug or unsolder.
(5) Adjustment information for installation

1.3 DISASSEMBLY/ASSEMBLY METHOD

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	TOP COVER	D1	5(S1)	
②	BOTTOM COVER	D2	(S2), 7(L1)	
③	FRONT PANEL ASSEMBLY	D3	7(L2),*JOG/SHUTTLE (J636MS)	<NOTE1>
④	SW/JACK & SW/DISPLAY BOARD ASSEMBLIES	D4	12(L3),*CN1201 *CN1204	<NOTE2>
⑤	CASSETTE HOUSING ASSEMBLY	D5	2(S3),2(S4)	<NOTE3>
⑥	SHIELD CASE	D6	2(S5), *CN1,	
⑦	DRUM ASSEMBLY	D7	3(S6),WR1,	<NOTE4>
⑧	MAIN DECK ASSEMBLY	D8	2(S7),WR2 WR3,2(L4),*CN703	<NOTE5>
⑨	MAIN BOARD ASSEMBLY	D9	2(S8)	

<NOTE1>
When reattaching the front panel assembly, make sure that the door opener (⑨) of the cassette housing assembly is lowered in position prior to the reinstallation.

<NOTE2>
When plugging the connector in, check that the flat wire is inserted properly and fully.

<NOTE3>
When reattaching the cassette housing assembly, pay careful attention to the switch lever not to make it touch the REC switch knob of the REC SAFETY board assembly from the upside.
(If the REC switch knob of the REC SAFETY board assembly is damaged, cassette loading is impossible.)

<NOTE4>
When plugging the connector in, check that the flat wire is inserted properly and fully.

<NOTE5>
- When removing the Main deck assembly only, unhook the two spacers connecting it with the Main board assembly with pliers from the back side of the Main board assembly first, and then remove the Main deck assembly.
- When reattaching the Main deck assembly to the Main board assembly, make sure to set the spacers into the retaining slots respectively.

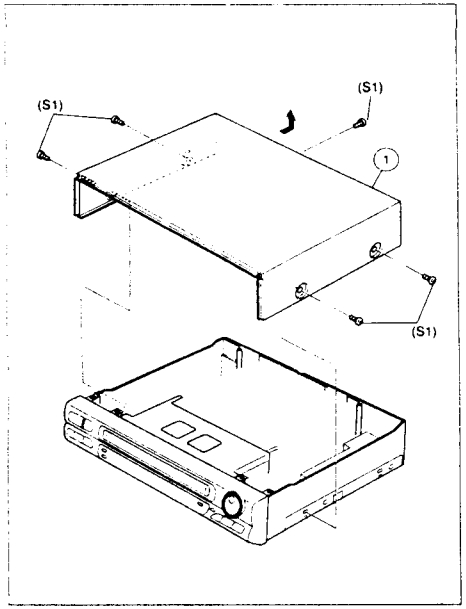


Fig. D1

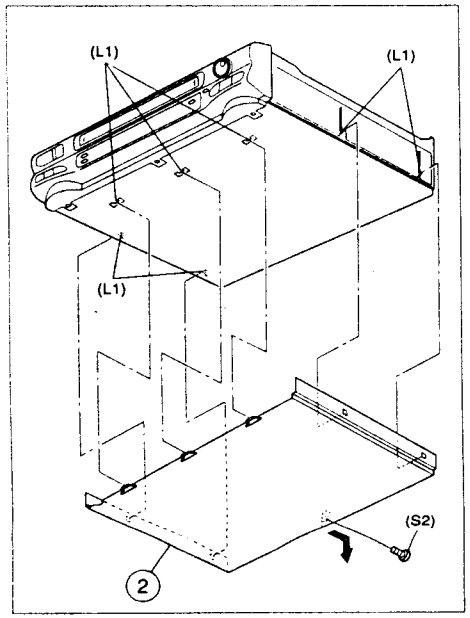


Fig. D2

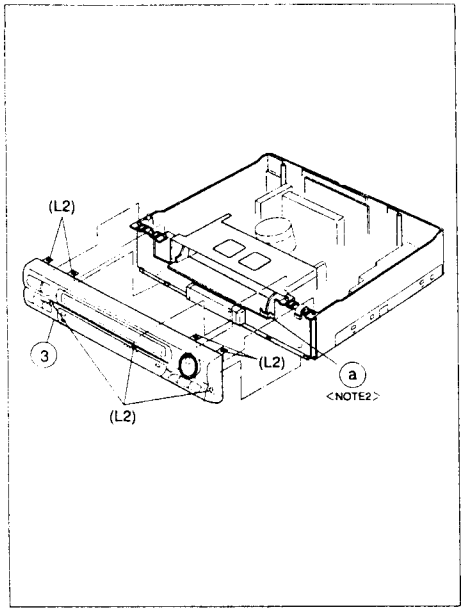


Fig. D3

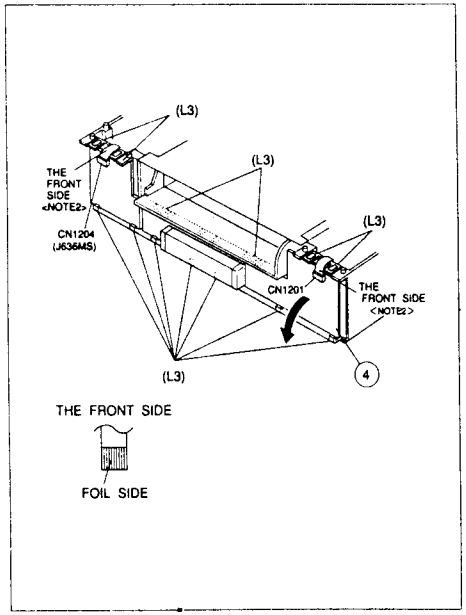


Fig. D4

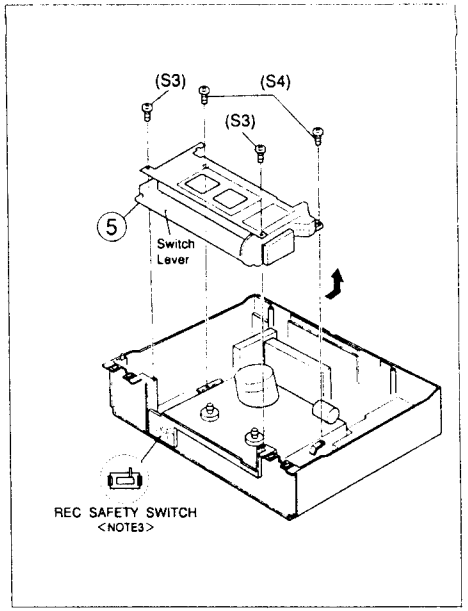


Fig. D5

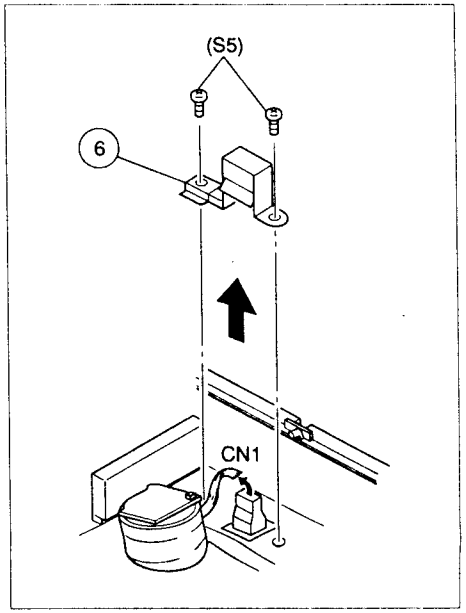


Fig. D6

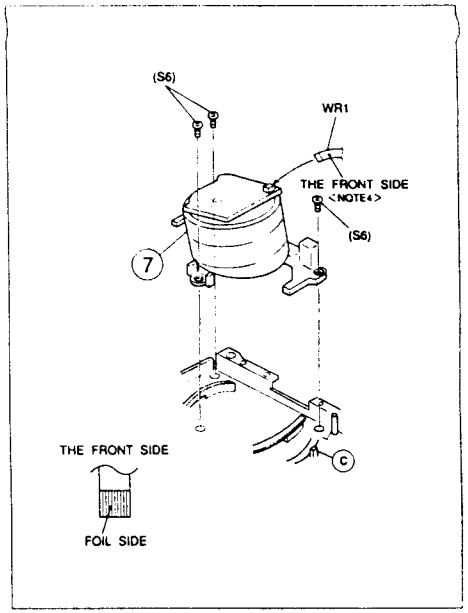


Fig. D7

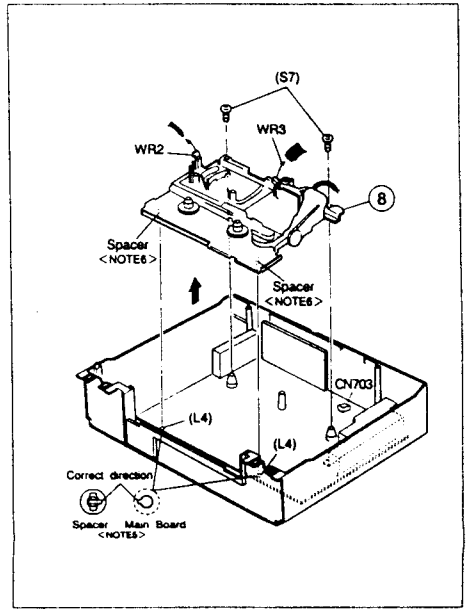


Fig. D8

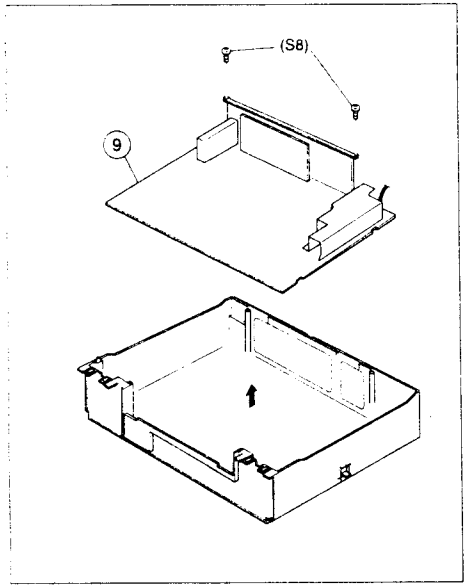


Fig. D9

1.4 CASSETTE HOUSING INSTALLATION

NOTE: *Observe the mechanical phase and position (see figure) when installing the cassette housing assembly. If these are incorrect, the system will not operate properly even when tape is inserted.*

1. Check that the hole of the control cam are aligned to the deck hole. If necessary, turn the loading motor belt by hand to adjust the position.

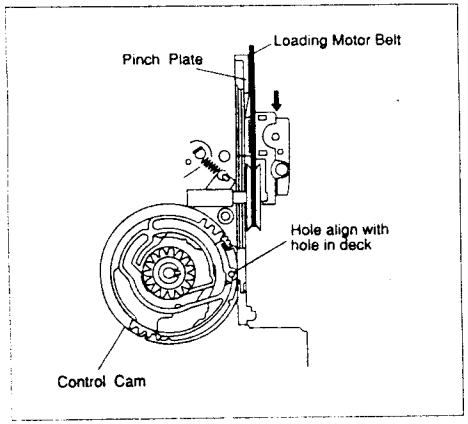


Fig. 1-4-1

1.5 SERVICE POSITION

1.5.1 How to take out the Mechanism and Main board assemblies.

(1) Remove the Top cover, Front panel assembly, CN1201 and CN1204 of the SW/DISPLAY and SW/JACK board assemblies.

(2) Take out 4 screws (A), 2 screws (B) and 1 screw (C) as shown in Fig.1-5-1.

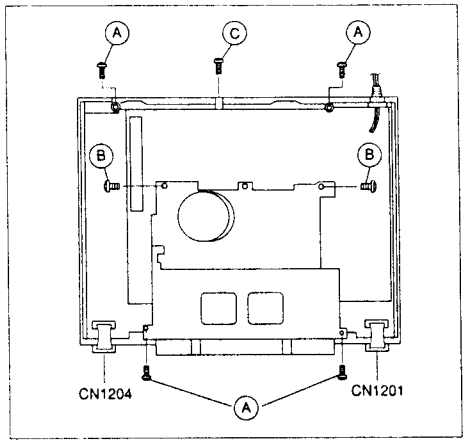


Fig. 1-5-1

(3) Remove the Mechanism assembly (including Cassette housing) and Main board assembly out of the chassis as shown in Fig. 1-5-2.

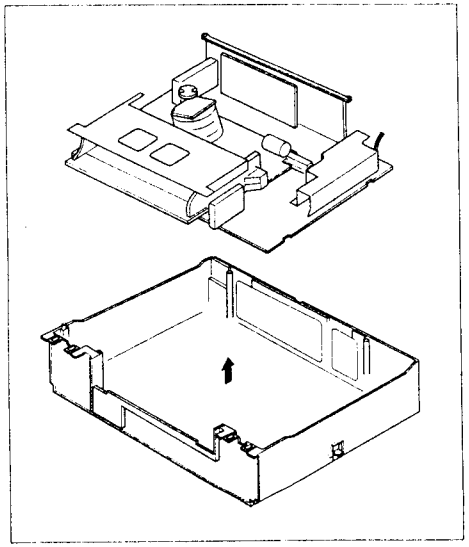


Fig. 1-5-2

(5) Turn over the Mechanism assembly and Main board assembly then connect CN1201and CN1204 of the SW/DISPLAY and SW/JACK board assemblies.

(6) Carry out checks & repairs as necessary as shown in Fig.1-5-3.

Note: *When input the AUDIO/VIDEO signal from connector, connect CN1204 of the SW/JACK board assembly. (HR-J636MS only)*

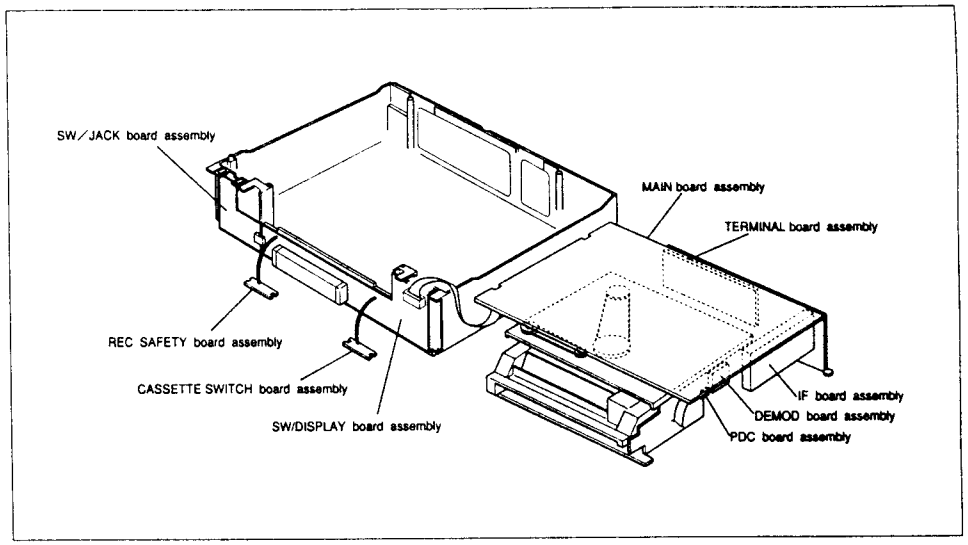


Fig. 1-5-3

1.5.2 Cautions on cassette loading when mechanism is in service position

The REC SAFETY board assembly of this set serves both for detecting the safety tab (erasure prevention tab) of a cassette and detecting a cassette loaded. Therefore, cassette loading in the condition that the mechanism is disassembled from the set needs manual operation of the switches of the REC SAFETY board assembly and the CASSETTE SWITCH board assembly.

1.5.3 Cassette loading and ejecting procedures when mechanism is in service position

(1) Insert a cassette tape halfway into the cassette housing assembly.

(2) Press the switch of the REC SAFETY board assembly to turn on.

(3) When the cassette loading begins and the cassette goes down to the bottom, immediately press the switch of the REC SAFETY board assembly to turn off and hold the status that the switch of the CASSETTE SWITCH board assembly is turned on. (Fix the switch with adhesive tape or put a screwdriver, etc. on it to leave the switch in the ON status.)

(4) In this status, desired operations (recording, playback, fast forward, rewind, etc.) can be performed.

Note: *When the mechanism is in the service position, the safety tab of cassette tape is not detected and recording on cassette tapes without safety tab is possible. Therefore, carefully choose a cassette tape for operation in this mode so as to avoid using cassette tapes of important recording.*

(5) For ejecting the cassette in this status, do it in the reverse order of cassette loading mentioned above.

Note: *If the manual operation REC SAFETY switch timing is incorrect, the cassette may be completely or partially ejected, and the cassette is often ejected incompletely. In such a case, it is possible to take out the cassette by hand.*

If it is desired to load a cassette again after the cassette is ejected in the above procedure, make sure to set the tray of the cassette housing assembly in the frontmost position prior to loading the cassette once again.

1.5.4 Opening on the chassis.

The chassis assembly has openings for easy access to the checkpoints and connector pins as shown in Fig.1-5-4.

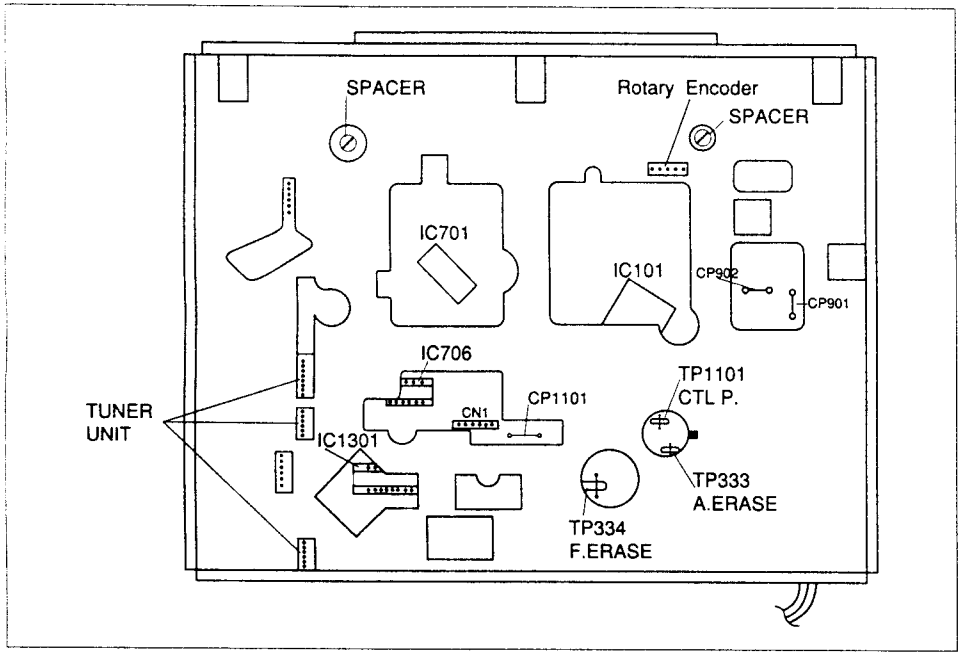


Fig. 1-5-4

1.6 MECHANISM SERVICE MODE

This model has a unique function to enter the mechanism into every operation mode without loading of any cassette tape. This function is called the "MECHANISM SERVICE MODE".

1.6.1 How to set the "MECHANISM SERVICE MODE"

(1) Disconnect VCR from AC.
(2) Remove the Top cover, Front panel assembly and cassette housing assembly. (See Page 1-2, 1-3)
(3) Connect TP1202 (GND) and TP1201 (TEST) on the SW/DISPLAY board assembly with a jump wire.
(4) Connect VCR to AC.
(5) Press the POWER button.
(6) Select the desired operation modes with the operation buttons or remote controller.

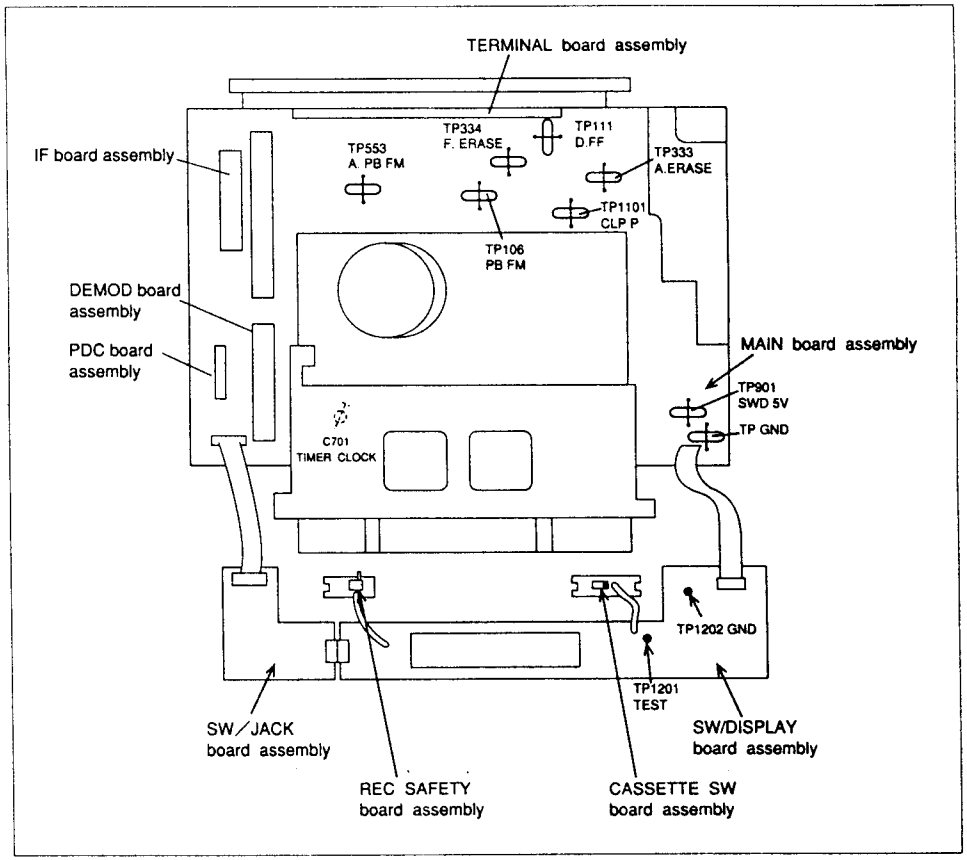


Fig. 1-6-1

1.7 EMERGENCY DISPLAY FUNCTION

This product has the function to store the last two previous emergency faults which can be displayed in the FDP when servicing.

1.7.1 How to display record of an emergency faults

(1) Press "N" button of the presetting unit more than 2 seconds. and the two previous emergency faults are shown in the FDP.
(2) Press "N" button of the presetting unit again when return the normal mode.

[Example] E : 01 : 03

- 03 — Emergency faults before last
- 01 — Emergency faults of the last time

[Example] E : — — : — — ← No record of emergency

1.7.2 Detail of emergency faults

FDP	Symptom	Detect mode	Resulting mode
E : 01	Loading motor rotates for more than 8 Sec without shift to next mode.	Loading	POWER OFF
E : 02	Loading motor rotates for more than 8 Sec without shift to next mode.	Unloading	POWER OFF
E : 03	TU REEL FG input is absent(for more than 4 Sec)	REC/PLAY/FF/REW SEARCH FF/SEARCH REW	STOP → POWER OFF
E : 04	DRUM FF input is absent(for more than 3 Sec)	REC/PLAY/FF/REW SEARCH FF/SEARCH REW	STOP
E : 06	CAPSTAN FG input is absent(for more than 1 Sec)	REC/PLAY/FF/REW SEARCH FF/SEARCH REW	STOP → POWER OFF
E : 07	No SWD5V/12V	POWER ON	POWER OFF

Table 1-7-1 EMERGENCY FAULTS

1.7.3 How to clear emergency record

Press the COUNTER RESET button on the remote controller in the emergency record display mode,and the record of the emergency fault(s) is cleared.

SECTION 2
MECHANISM ADJUSTMENT

2.1 PREPARATION

2.1.1 Precautions

(1) Disconnect VCR from AC power before soldering.
(2) Avoid imparting stress to wires when disengaging connectors.
(3) Determine and correct the cause of difficulty before proceeding to adjustments.Do not disturb settings unnecessarily.
(4) Use care not to damage tabs,claws,etc during repairs.
(5) Install the cassette housing assembly only when the mechanism is in the MECHANISM ASSEMBLING MODE position.
(6) When installing the Front panel assembly,be sure to engage the housing door with the door opener of the cassette housing assembly.
If this is omitted,the cassette door will not open at Eject and the cassette can not be removed. (See SECTION 1 DISASSEMBLY.)

2.1.2 Check without cassette housing assembly.

Mechanism operations can be observed easily by removing the cassette housing assembly. Use the MECHANISM SERVICE MODE. (See SECTION 1 DISASSEMBLY.)

2.1.3 Manual removal of loaded tape

When the deck enters the emergency mode with cassette tape loaded and it can not be ejected by pressing the EJECT button,take out of the cassette tape according to the following procedure.
(1) Disconnect the power cord from AC outlet then take out the Top cover and Front panel assembly.
(2) Turn the loading motor on the Main deck assembly by hand in the unloading direction to where the pole base assembly (supply and take-up) is positioned below the cassette tape.At that time, pay careful attention to the tape not to get soiled with grease.
(3) Take out 4 screws of the cassette housing assembly.(See SECTION 1 DISASSEMBLY.)
(4) Remove the cassette housing with slackened tape and guard panel of cassette.
(5) Wind up the tape by turning the reel hub(either supply or take-up side for convenience) from the bottom of the cassette,and remove the cassette tape.

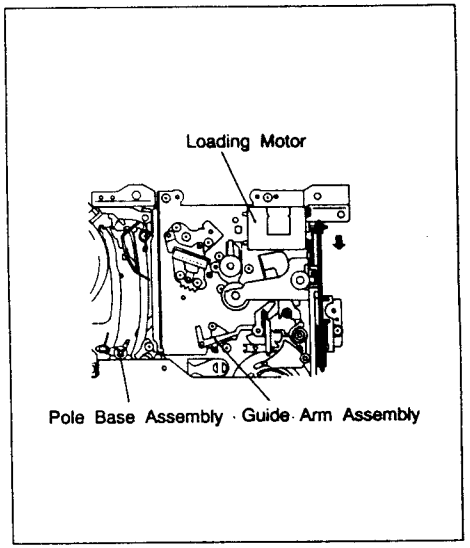


Fig. 2-1-1

2.1.4 Test Equipment

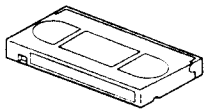
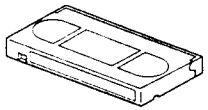
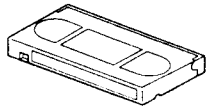
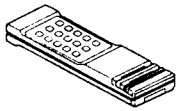
Alignment tape (SP) MHPE	Alignment tape (LP) MHPE-L	Back tension cassette gauge PUJ48076-2	A/C head positioning tool PTU94010
			
Roller driver PTU94002	Presetting unit PTU94008	Grease KYODO-SH-P	
			

Table 2-1-1 Test equipment

2.2 MAIN MECHANISM PARTS

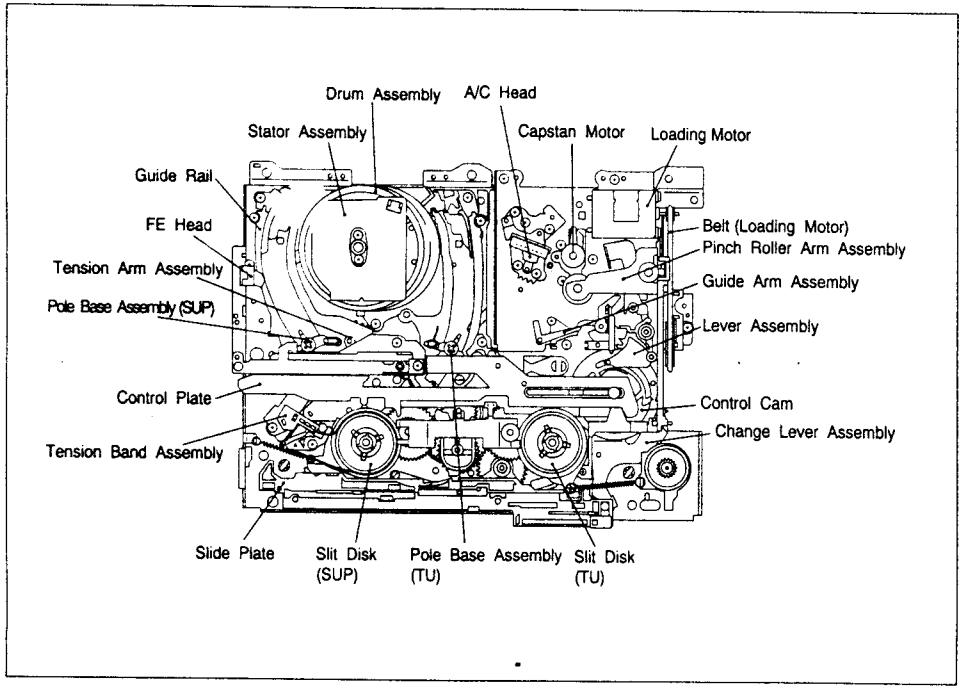


Fig. 2-2-1 Top view of main deck

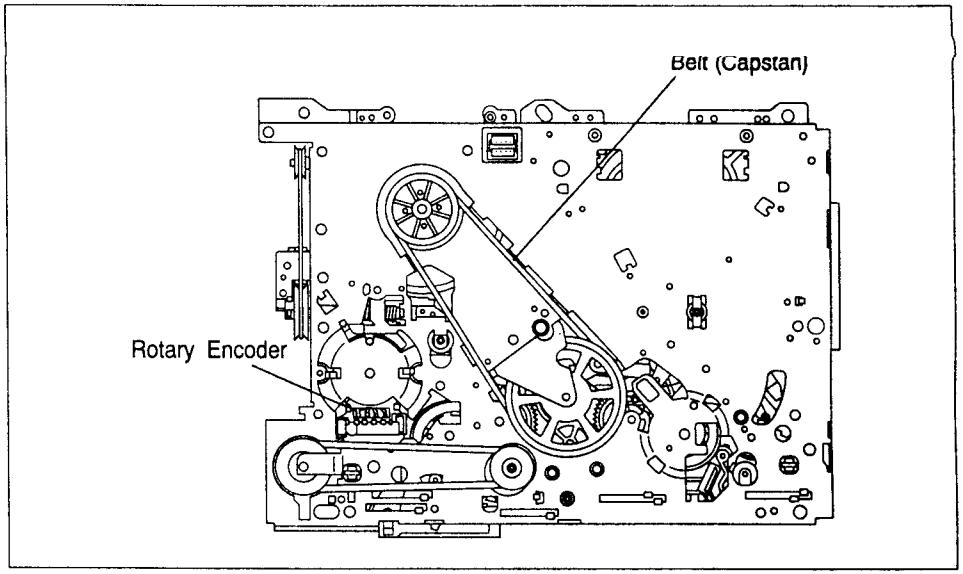


Fig. 2-2-2 Bottom view of main deck

2.2.1 Cleaning

Periodic cleaning of the tape transport system is desirable,but usually not feasible in practice.Therefore,perform cleaning when a set is brought in for repairs or maintenance. Contamination of the video heads,tape guides and brush can detract from playback picture quality and in extreme cases,even damage the tape.For cleaning,use a finemesh cotton cloth(about the texture of a white dress-shirt) moistened in alcohol. It is recommended to also clean thetape tension posts and capstan.

- To clean the video heads,press the moistened cloth gently against the upper drum with fingertip and turn the drum by hand.
- Do not use a vertical stroke,as this may damage the heads.

2.2.2 Lubrication

Oil and grease do not normally require periodic replenishing. Apply only when replacing lubricated parts(also clean and replace lubrication of mating parts if soiled). For parts and points to apply oil and grease, refer to the exploded views of the mechanism assembly. Before oiling,clean with alcohol. Apply one or two drops of oil. Avoid excess oil.

1. Table 2-2-1 indicates the oil and grease used in this set. Use these or recommended locally available equivalents.

Category	Part No.
Oil	COSMO-HV56
Grease	KYODO-SH-P

Table 2-2-1

2. Grease is not required for a replacement cassette housing assembly,as this has been applied at the factory.

NOTE : ***Stir grease that has been stored for an extended period.***

2.3 INSPECTION AND MAINTENANCE

This product employs rotary and moving parts which wear out in the course of usage.Periodic inspection, cleaning, lubrication and maintenance are therefore important for ensuring maximum performance. Worn parts must also be replaced as and when required.

2.3.1 Suggested servicing schedule for main components

The following table indicates the suggested period for such service measures as cleaning,lubrication and replacement. In practice, the indicated periods will vary widely according to environmental and usage conditions.However, the indicated components should be inspected when a set is brought for service and the maintenance work performed if necessary. Also note that rubber parts may deform in time,even if the set is not used.

System	Parts Name	Operation Hours	
		~1000H	~2000H
Tape transport	Upper drum assembly	★○	○
	A/C head	★○	★○
	Lower drum motor assembly	★	★○
	Pinch roller arm assembly	★	★
	Full erase head	★	★
	Tension arm assembly	★	★
	Guide arm assembly	★	★
Drive	Capstan motor		○
	Belt (Capstan)	○	○
	Belt (Loading motor)		○
	Loading motor		○
	Slit disk (supply, take-up)		○
	Clutch unit (supply, take-up)		○
	Worm gear assembly		○
	Control plate		○
	Slide plate		○
Other	Brush assembly	★○	★○
	Tension band assembly	○	○
	Rotary encoder		○

★ : Cleaning
○ : Inspection or Replacement if necessary

Table 2-3-1

2.4 DISASSEMBLY/ASSEMBLY PROCEDURE OF MECHANISM

2.4.1 Precaution before disassembling mechanism

This mechanism has an exclusive operation mode provided for disassembling and installation of the mechanism (MECHANISM ASSEMBLING MODE), and it is suggested to set the mechanism to this mode before disassembly and installation.The exclusive mechanism operation mode is not generally used and becomes available by manual setting only. Then this procedure starts with the condition that the cabinet parts,cassette housing assembly and PRE/REC board assembly have been removed.

2.4.2 How to set the exclusive mechanism operation mode (MECHANISM ASSEMBLING MODE)

(1) Turn the loading motor belt by hand.
(2) Confirm that the hole of the control cam are aligned to the deck hole as shown in Fig.2-4-1.

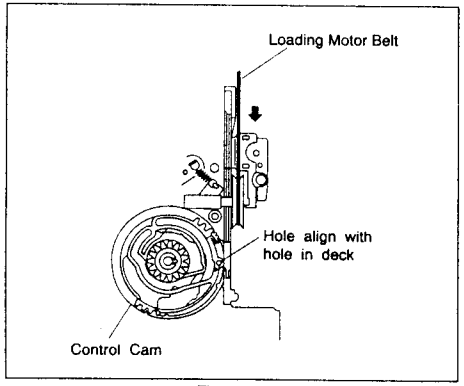


Fig. 2-4-1

2.5 MAIN PARTS REPLACEMENT OF MECHANISM

2.5.1 Pinch Roller Arm Assembly

(1) Remove the slit washer.
(2) Tilt up the pinch roller assembly in direction of arrow.

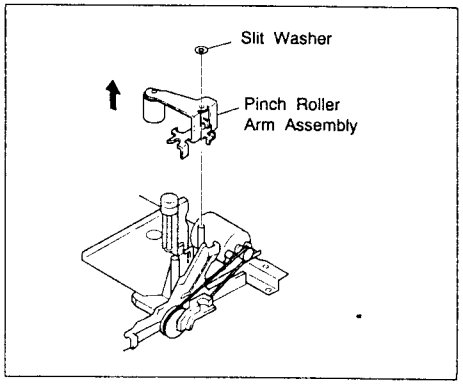


Fig.2-5-1

2.5.2 A/C Head

1. Removal

(1) Take out 2 screws (A).
(2) Remove the A/C head with head base.

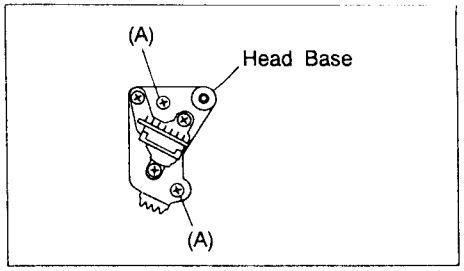


Fig.2-5-2

(3) When replacing the A/C head only,remove 3 screws (B), use care not to misplace the 3 springs.

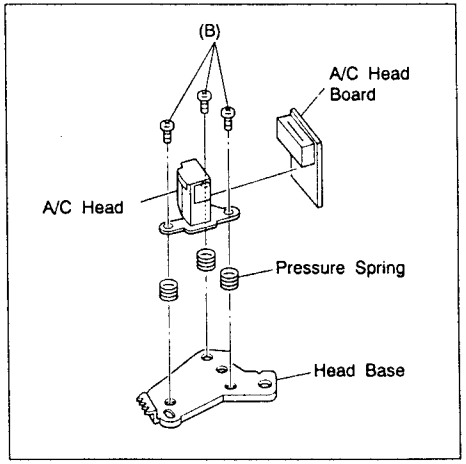


Fig.2-5-3

2. Installation

(1) Temporarily set A/C head height as indicated in Fig. 2-5-4.

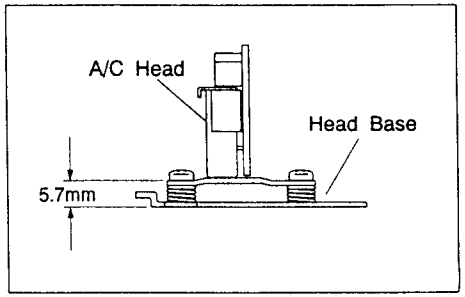


Fig.2-5-4

NOTES:

- *It is very important to correctly adjust the control pulse and audio signal in addition to the mechanical tape path.*
- *Perform interchangeability adjustments after electrical adjustments.*

2.5.3 Pinch Plate

1. Removal

(1) Disengage 2 claws, then remove the pinch plate.

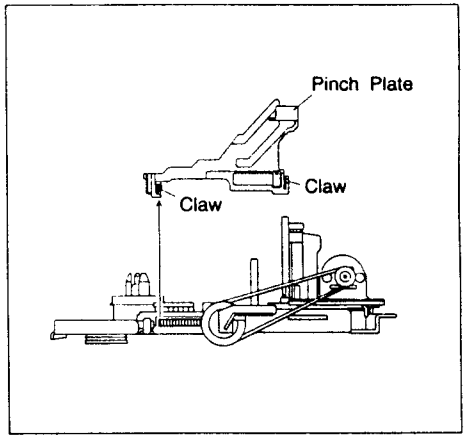


Fig.2-5-5

2. Installation

(1) When installing pinch plate,align rack of pinch plate and triangle mark of control cam as indicated in Fig.2-5-6.

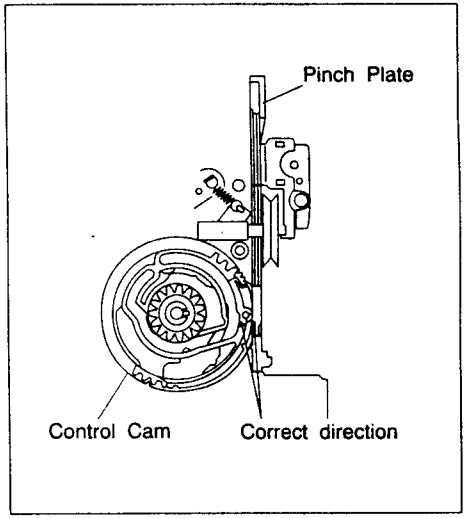


Fig. 2-5-6

2.5.4 Loading Motor

(1) Disengage the belt between loading motor and worm gear.
(2) Take out 2 screws (A) then remove the loading motor.

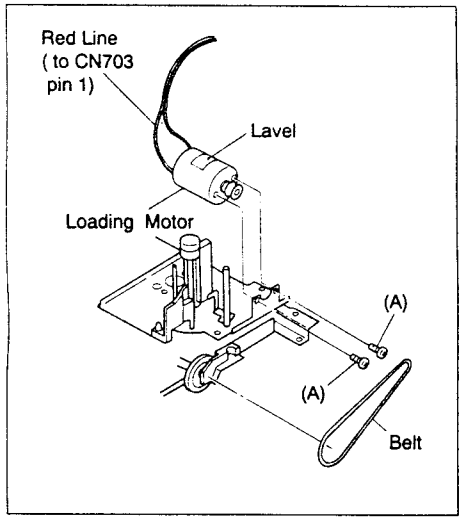


Fig.2-5-7

2.5.5 Lever Assembly,Sub Deck Assembly,Capstan Motor

(1) Take out 1 slit washer,then remove the lever assembly.
(2) Disengage the belt(capstan motor) from bottom of mechanism assembly first as indicated in Fig.2-5-10.
(3) Take out 3 screws (A) and remove the sub deck assembly as indicated in Fig.2-5-8.
(4) Take out 3 screws (B) and remove the capstan motor from the sub deck assembly as indicated in Fig.2-5-9.

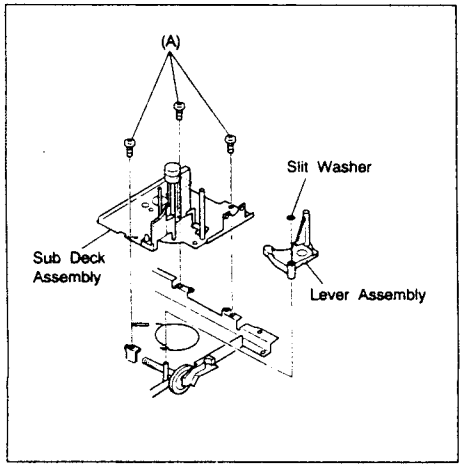


Fig.2-5-8

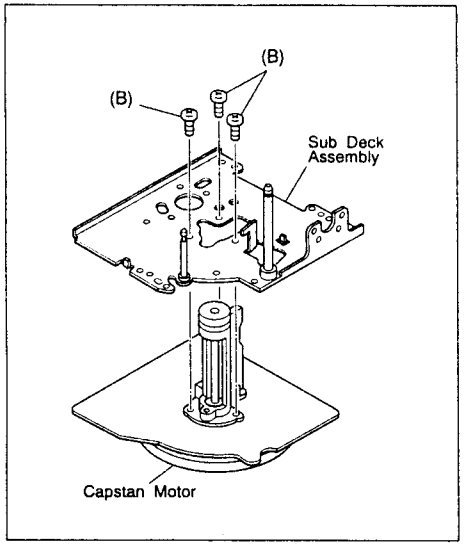


Fig.2-5-9

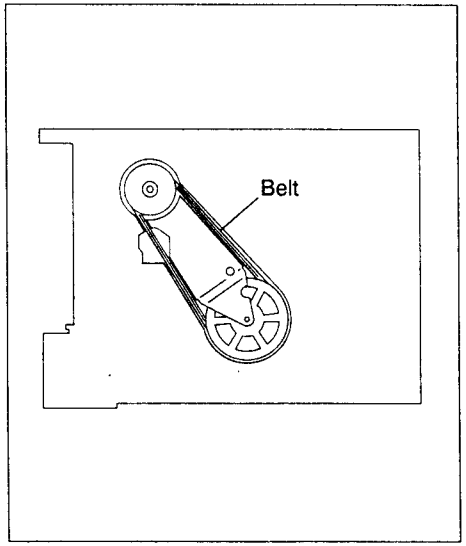


Fig.2-5-10

2.5.6 Control Bracket-1

(1) Take out 1 screw (A) and 1 screw (B).
(2) Remove the control bracket-1.

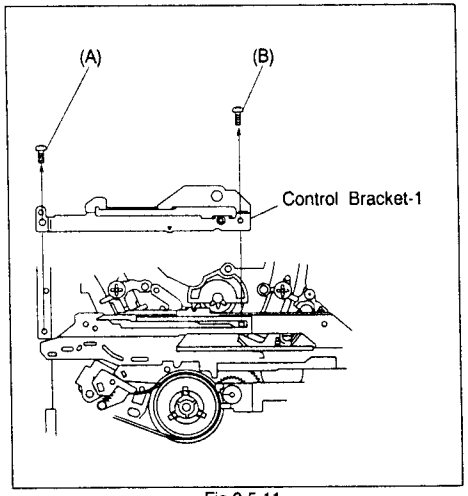


Fig.2-5-11

2.5.7 Reel Bracket,Slit disk (take-up),Control Bracket-2

(1) Take out 2 slit washers.
(2) Remove the reel bracket and slit disk(take-up).
(3) Take out 1 screw (A) and remove the control bracket-2.

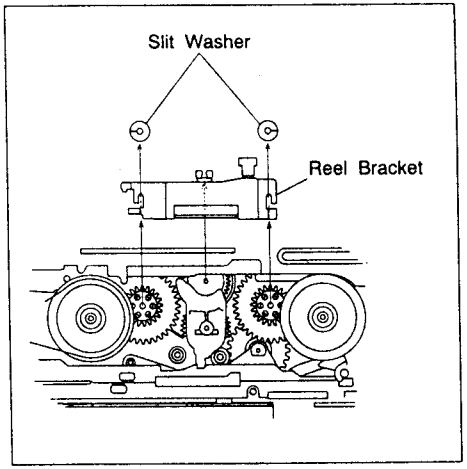


Fig.2-5-12

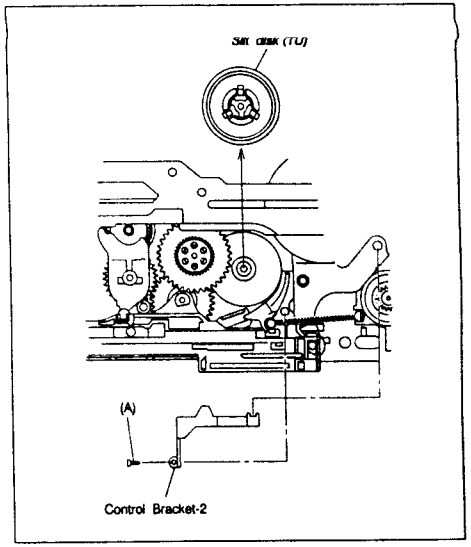


Fig.2-5-13

2.5.8 Control Plate

(1) Take out 1 slit washer.
(2) Disengage 2 claws and remove the control plate.

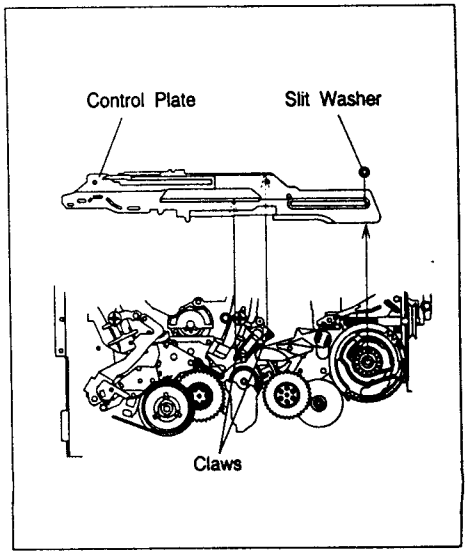


Fig.2-5-14

2.5.9 Sub Brake(take-up),Control Cam

(1) Disengage 1 spring (a) and 1 claw then remove the sub brake (take-up).
(2) Disengage 1 claw and remove the control cam.

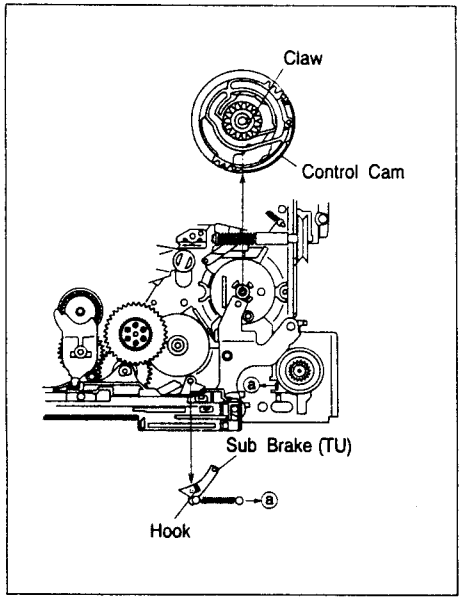


Fig.2-5-15

2.5.10 Slide Plate

(1) Disengage 7 claws from bottom of the mechanism assembly and remove the slide plate.

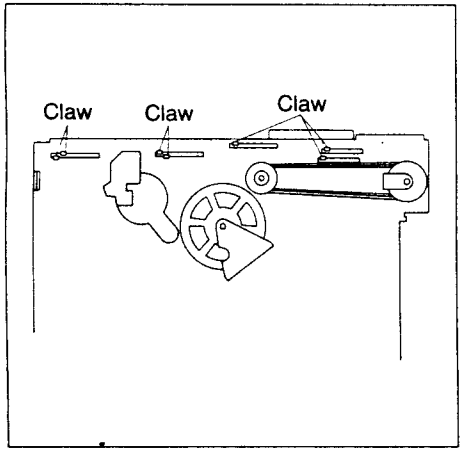


Fig. 2-5-16

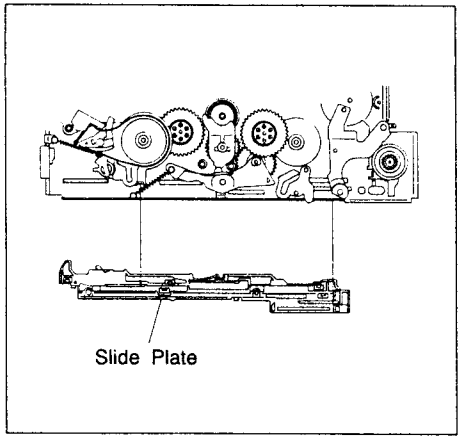


Fig. 2-5-17

2.5.11 Change Lever,Rotary Encoder

(1) Remove the change lever.
(2) Disengage 2 claws and remove the rotary encoder.

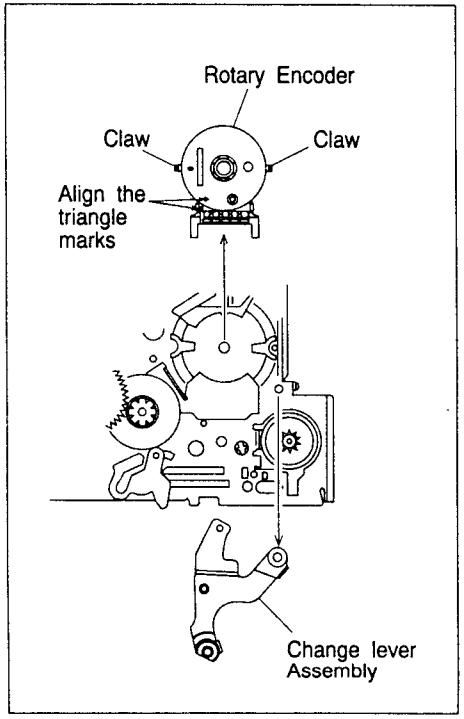


Fig. 2-5-18

2.5.12 Sub Brake (supply),Tension Band Assembly,Tension Arm Assembly,Take-up Lever Assembly,Slit Disk(supply)

(1) Disengage 1 spring (a).
(2) Disengage 1 claw and remove the sub brake (supply).
(3) Take out 1 screw (A),spring (c) and slit washer.
(4) Remove the tension arm assembly with tension band assembly.
(5) Disengage 1 spring (b) and remove the take-up lever assembly.
(6) Remove the slit disk(supply).

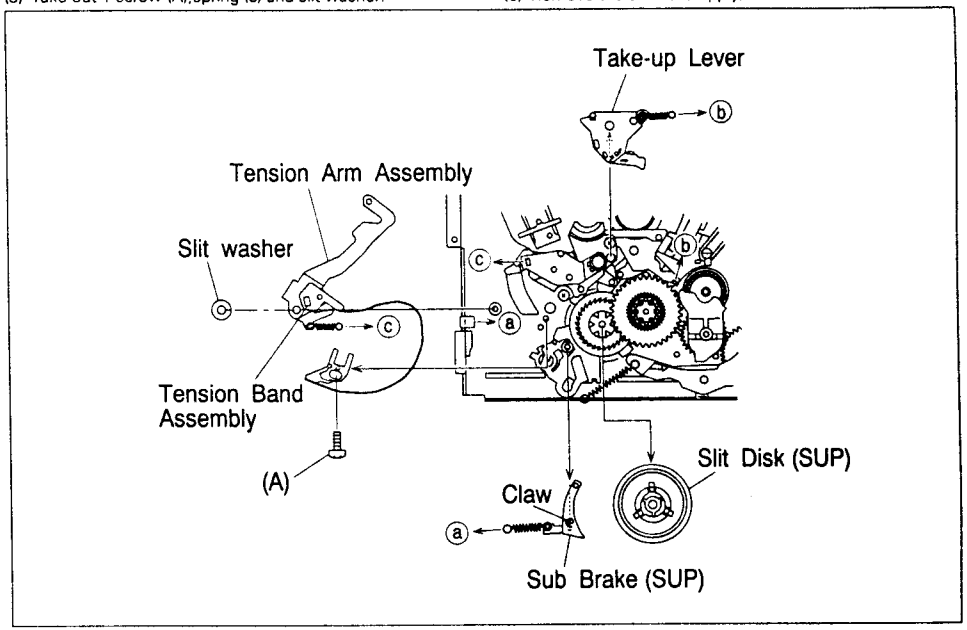


Fig. 2-5-19

2.5.13 Take-up Head,Tension Arm Lever

(1) Remove the take-up head and tension arm lever.

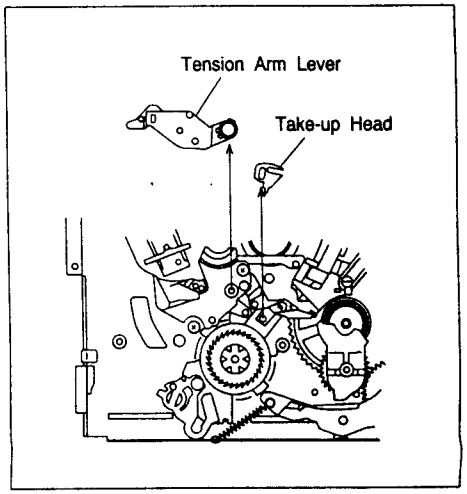


Fig.2-5-20

2.5.14 Guide Rail

(1) Take out 5 screws (A) and 1 screw (B).
(2) Disengage 4 claws and remove the guide rail.

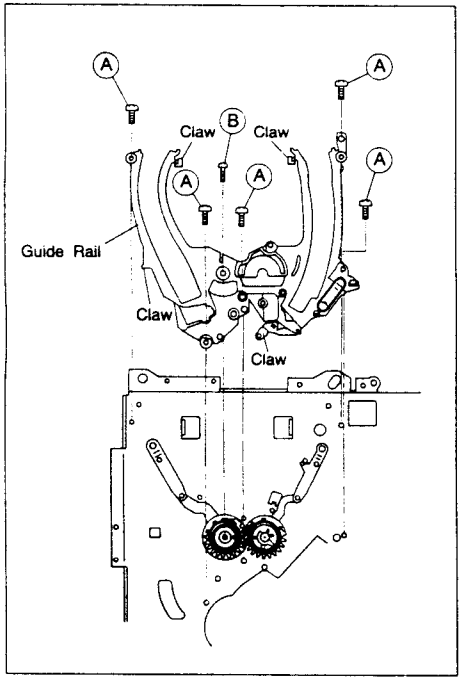


Fig. 2-5-21

2.5.15 Stator Assembly

(1) Take out 2 screws (A).
(2) Raise the stator assembly in the direction indicated by the arrow to remove it.
(3) Remove the flat cable.
(4) To reinstall,first secure the flat cable,then insert 2 screws (A).
(5) After reinstalling, be sure to perform PB switching point adjustment(See SECTION 3 ELECTRICAL ADJUSTMENT).

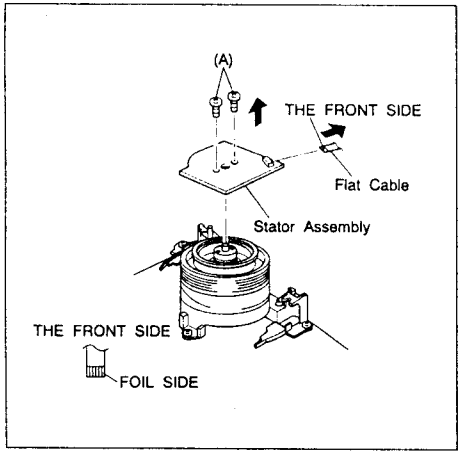


Fig. 2-5-22

NOTE : *When refitting the connector, check that the flat wire is inserted correctly.*

2.5.16 Rotor Assembly

(1) Remove the stator assembly.
(2) Take out 2 screws (B) and remove the rotor assembly.

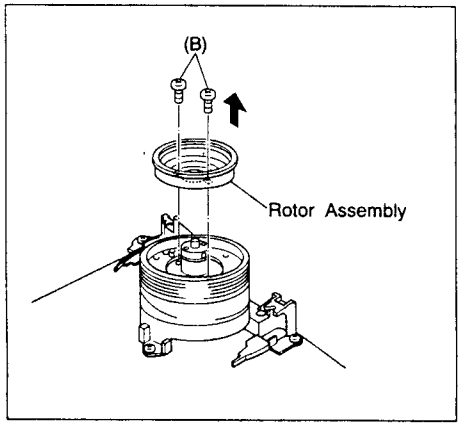


Fig.2-5-23

(3) Align the upper dum assembly and rotor assembly phase as indicated in Fig.2-5-22.
(4) Overlap holes (a) of the upper drum assembly with holes (b) of the rotor assembly (align holes in 3 locations) and secure with 2 screws (B) as indicated in Fig.2-5-21.

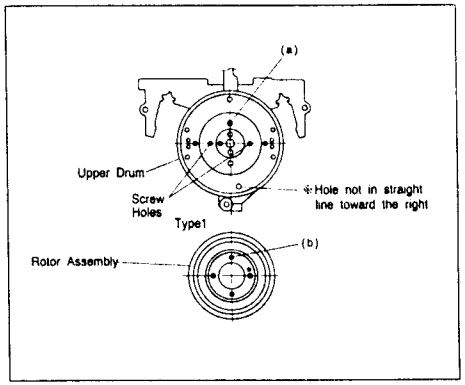


Fig. 2-5-24

2.5.17 Upper Drum Assembly

1. Removal

(1) Remove the stator assembly and rotor assembly.
(2) Use a 1.5 mm hexagonal wrench to loosen the collar assembly screw and remove the collar assembly.
(3) Remove the upper drum assembly and use tweezers to remove the Washer.

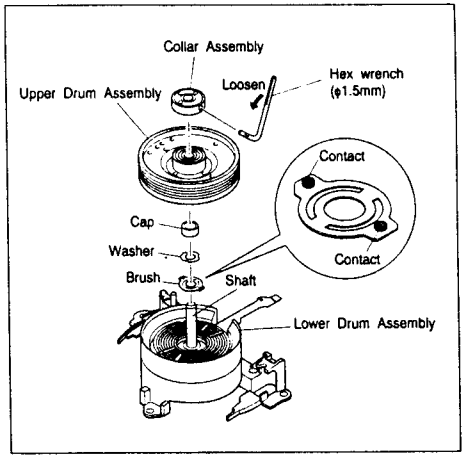


Fig. 2-5-25

NOTE : *If the Brush is replaced, do not apply the grease to the contacts.*

2. Installation

(1) Use an air brush to clean the lower drum assembly and the coil section of the new upper drum assembly.
(2) Set a new washer on the drum shaft as indicated in Fig.2-5-25.

NOTE : *Be sure to use the new washer when replace the upper drum assembly.*

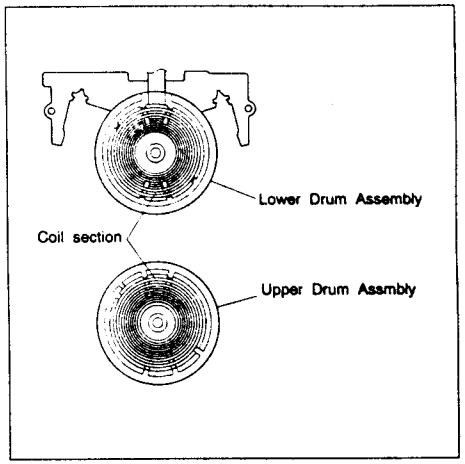


Fig.2-5-26

(3) Note the top and bottom of the collar assembly and determine the position as indicated in Fig.2-5-25.

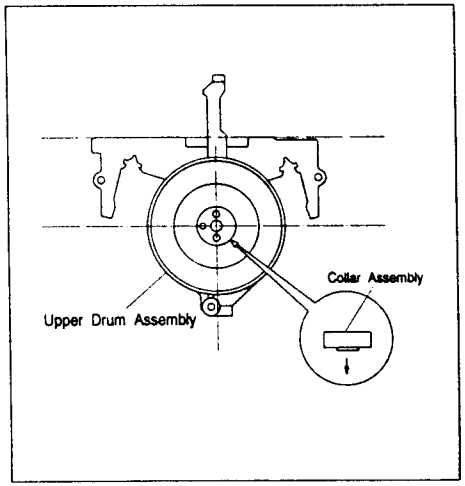


Fig.2-5-27

(4) While pressing the collar assembly evenly from above with your fingertips,secure the hexagonal screw.

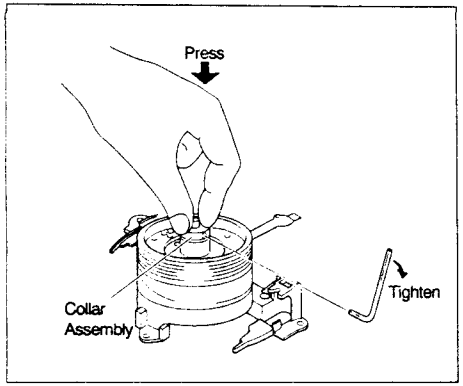


Fig.2-5-28

(5) After installing,gently turn the upper drum by hand and confirm normal rotation.
(6) Install the rotor assembly and stator assembly.
(7) Clean the upper and lower drum assemblies and perform the following adjustments;
- PB switching point adjustment
- Slow tracking preset adjustment
- Interchangeability adjustment (be sure to check LP mode)

2.6 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE

2.6.1 Precaution

The rotary encoder and syscon circuit are closely interrelated.Therefore,the rotary encoder and control cam conection determines the operations of mechanical parts such as plates,gears,brakes,etc.Correct positioning of these parts is essential for smooth tape loading and mechanical operations.

2.6.2 Loadidg Arm Assemby (supply,take-up)

(1) Install the supply loading arm assembly and the take-up loading arm assembly so that their positioning markings on the respective gear face each other and the holes of their arms correspond to the holes on the main deck assembly respectively.
(2) After setting the guide rails,engage the pole base assemblies with the tip of the loading arms respectively. Then,enter the mechanism into the unloading mode to return the pole base assemblies to the front position.
(3) Reassemble the peripheral parts of the guide rail to its original position.

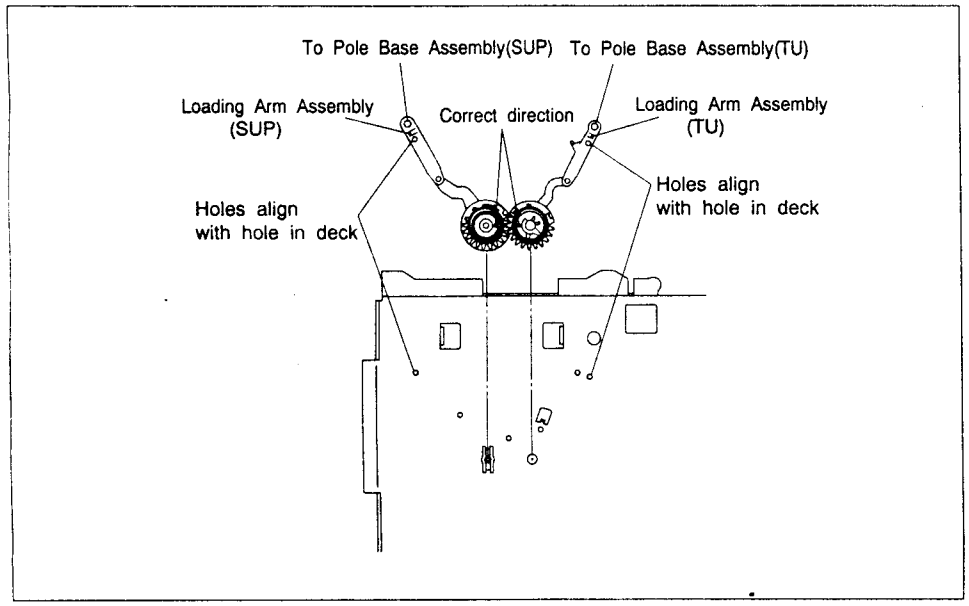

To Pole Base Assembly(SUP)
To Pole Base Assembly(TU)
Loading Arm Assembly (SUP)
Correct direction
Loading Arm Assembly (TU)
Holes align with hole in deck
Holes align with hole in deck

Fig. 2-6-1

2.6.3 Rotary Encoder,Change Lever,Control Cam

(1) When reinstalling the rotary encoder,adjust its position so as to fit the triangle marks each other and push it deep untill it is locked by the pawls.
(2) When reinstalling the change lever,set it so as to make its positioning hole correspond to the hole of the main deck assembly.
(3) When re-engaging the control cam,lower the capstan brake assembly while setting it so as to make its positioning hole correspond to the hole of the main deck assembly.

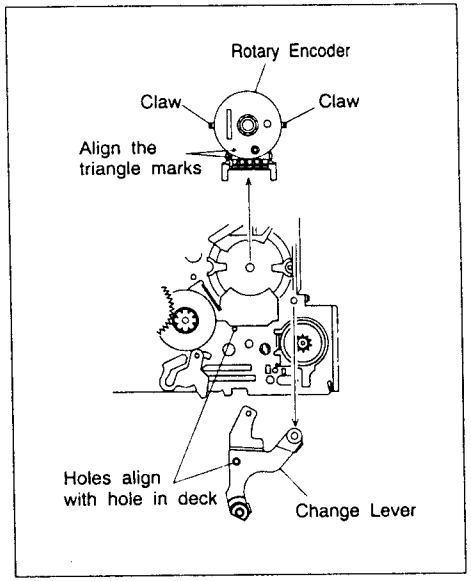


Fig. 2-6-2

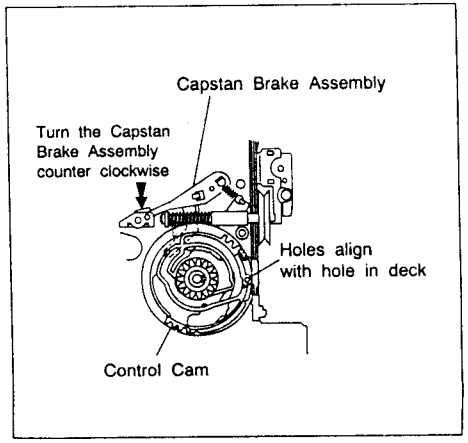


Fig. 2-6-3

2.6.4 Slide Plate

(1) Lower both the main brake assemblies (supply and take-up) untill they touch the edge of the main deck assembly while reinstalling the slide plate so as to make the respective positioning holes of the main brake assemblies correspond to the holes on the main deck assembly.

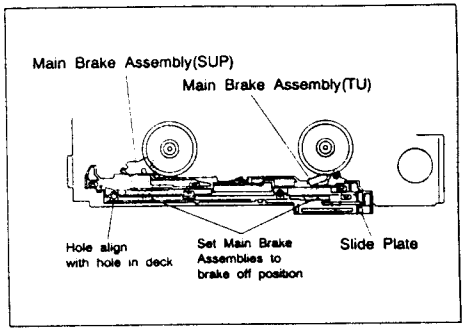

Main Brake Assembly(SUP)
Main Brake Assembly(TU)
Hole align with hole in deck
Set Main Brake Assemblies to brake off position
Slide Plate

Fig.2-6-4

2.6.5 Control Plate

(1) Reinstall the control plate so as to set the two positioning holes of it on the holes on the main deck assembly respectively and to set the positioning hole of the take-up lever on the hole of the main deck at the same time. When adjusting the hole position of the take-up lever,use a pair of tweezers to hold and move it since it is pulled by a tension spring.
(2) After reinstalling the control plate,fix it with the slit washer,control bracket-1 and -2.

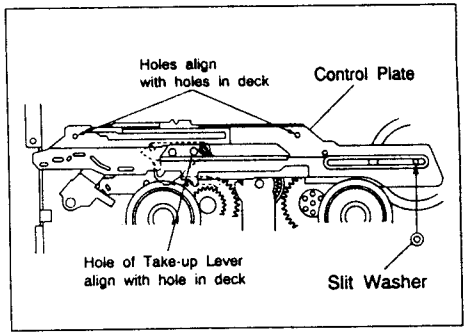


Fig. 2-6-5

2.7 TAPE INTERCHANGEABILITY ADJUSTMENT

NOTE : • *This adjustment is extremely important. However, it is normally not required during routine service. Perform only after replacing major components(A/C head,upper/lower drum assembly,pole base assembly,etc).*
• *Before using costly alignment tape,use a spare tape and confirm correct operation of the tape transport.*

2.7.1 Tape pattern

(1) Connect the oscilloscope to TP106(PB FM) on the Main board.Use TP111(D.FF) on the Main board as a trigger.
(2) Playback the SP stairstep portion of the alignment tape [MHPE].Confirm that the FM waveform appears as indicated in Fig.2-7-1.
(3) Set the manual tracking position by pressing the ▮▮▮ button on the remote controller or TV PROG "-" and "+" buttons simultaneously.
(4) Operate the tracking adjustment (press the TV PROG buttons during playback) and set for maximum playback FM waveform.
(5) By operating the TV PROG button,vary the FM waveform from maximum to minimum and vice versa to confirm that the waveform varies nearly in a flat shape as shown in Fig.2-7-1.
(6) When the FM waveform does not remain flat during this process,first slightly loosen the set screw located at the bottom of the guide rollers.Using the guide roller adjustment tool (Roller driver) ,adjust the supply and take-up guide rollers (refer to Fig.2-7-2) to obtain the correct waveform as indicated in Fig.2-7-3.
(7) By pressing the TV PROG buttons several times,vary the FM waveform output from maximum to minimum (and vice versa) gradually,and confirm that the variation proceeds in flat shape, as shown in Fig.2-7-3.
(8) Next playback the LP stairstep portion of the alignment tape [MHPE-L] and adjust the tracking control from maximum to minimum the FM waveform,confirm that FM waveform variation is always flat.
(9) Record the signal and play it back in both of the SP and LP mode,confirm that the FM waveform is flat in both mode.
(10) After adjustments,tighten the set screw of the guide rollers.
(11) Confirm that the tape wrinking does not occur at the roller upper or lower limits as indicated in Fig.2-7-4.

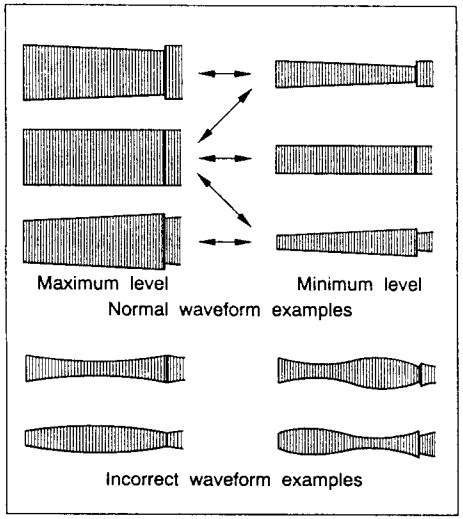


Fig. 2-7-1

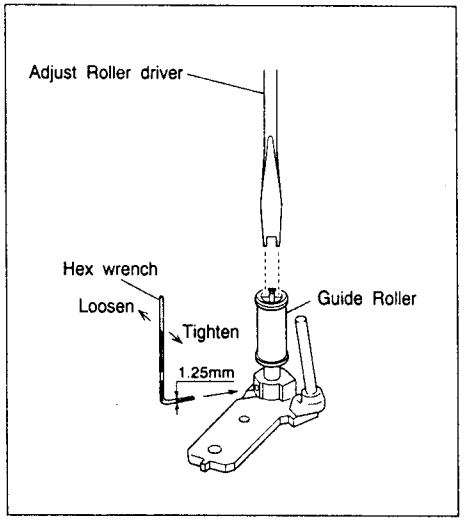


Fig. 2-7-2

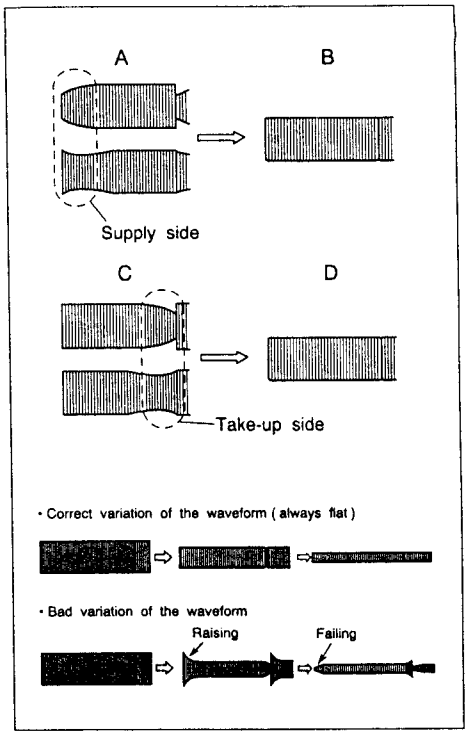


Fig. 2-7-3

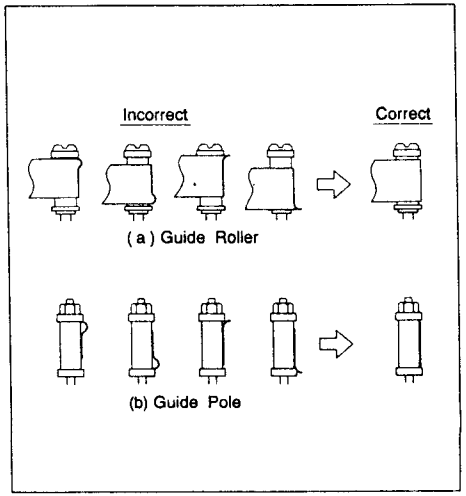


Fig. 2-7-4

2.7.2 A/C head height & azimuth

NOTE : • *Temporarily set A/C head height as indicated in Fig. 2-5-4.*
• *Use spare tape to check the transport and confirm the tape is not scratched or damaged.*

1. Tilt

(1) Use spare tape and set for playback.
(2) Turn screw (3) clockwise to where the tape curls just slightly at the TU guide pole bottom flange as shown in Fig.2-7-5.
(3) Then slowly turn screw (3) counterclockwise to where the curling ceases.

2. Height

(1) Connect CH-1 of a dual trace oscilloscope to Audio Out.
(2) Connect CH-2 to TP1101(CTL PULSE) of the Main board assembly and use the ALT mode.
(3) Playback the SP stairstep portion of the alignment tape [MHPE].
(4) Adjust screws (1),(2) and (3) for maximum audio output and control pulse level.

3. Azimuth

(1) Connect the oscilloscope to Audio Out.
(2) Playback the SP stairstep portion of the alignment tape [MHPE].
(3) Adjust screw (2) so that the audio output is both maximum and with minimum fluctuation.

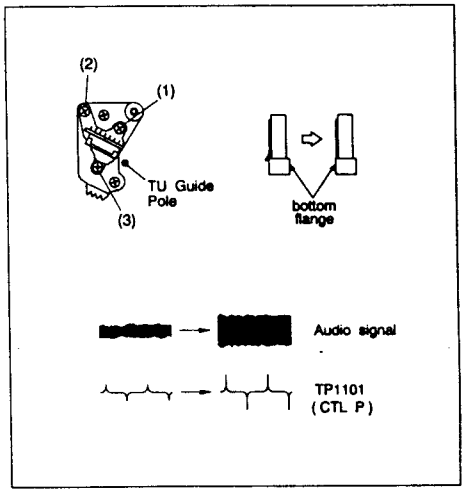


Fig. 2-7-5

2.7.3 A/C head phase(X-value)

(1) Connect the oscilloscope to TP106(PB FM) on the Main board.Use TP111(D.FF) on the Main board as a trigger.
(2) Playback the SP stairstep portion of the alignment tape [MHPE].
(3) Set the neutral manual tracking position by pressing the /// button on the remote controller or TV PROG "-" and "+" buttons simultaneously.
(4) If adjustment is required,slightly loosen screws (4) and (5). Set A/C head positioning tool on the A/C head adjusting boss as indicated in Fig.2-7-6.
(5) Turn the tool first to position the A/C head fully toward the capstan. Then gradually return it toward the drum and stop at the position of maximum FM waveform output level as shown in Fig.2-7-7.
(6) Tighten screw (5). Remove the tool and tighten screw (4).
(7) Eject the SP alignment tape [MHPE] and then re-insert the LP alignment tape [MHPE-L].
(8) Playback the LP stairstep portion of the alignment tape [MHPE-L].
(9) Set the neutral manual tracking position by pressing the /// button on the remote controller or TV PROG "-" and "+" buttons simultaneously.
(10) Confirm maximum playback FM waveform output level as shown in Fig.2-7-7.
(11) If not maximum,slightly loosen the screws (4) and (5). Use the tool and adjust the head position for the nearest maximum point. Then tighten screws (4) and (5).

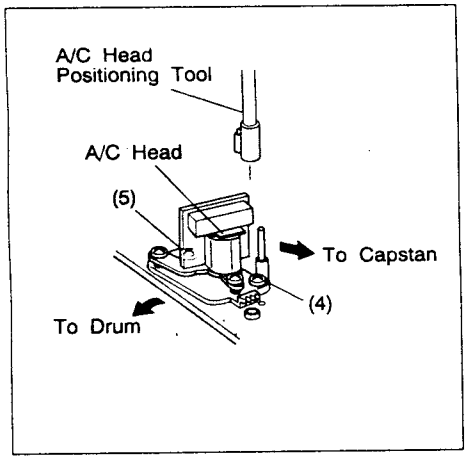


Fig. 2-7-6

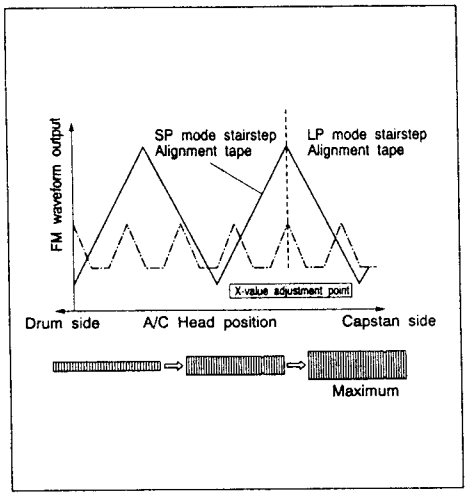


Fig. 2-7-7

2.7.4 LP mode auto tracking

NOTE : *Set VCR to the mode A by remote controller.*

(1) Connect the oscilloscope to TP106(PB FM) on the Main Board. Use TP111(D.FF) on the Main board as a trigger.
(2) Playback the LP stairstep portion of the alignment tape [MHPE-L].
(3) Confirm the FM waveform of the oscilloscope screen until auto tracking action is over.
(4) Twice press button "D" of the presetting unit [PTU94008].
(5) If the alignment tape ejects automatically,repeat the A/C head phase adjustment (X-value).

2.7.5 Tension pole position

(1) Set for playback mode using MECHANISM SERVICE MODE(See SECTION 1 DISASSEMBLY).
(2) Slightly loosen the screw (A) .
(3) Turn the adjust pin so that the tension arm assembly does not touch ϕ2.5 pole on the outside.
(4) Tighten the screw (A).
(5) After adjustment,use the back tension cassette gauge and set for the playback mode.
(6) Confirm reading of 29 to 46 g•cm.

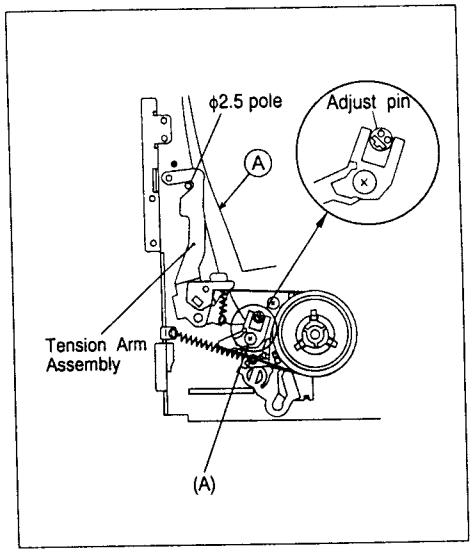


Fig. 2-7-8

2.7.6 Take-up torque

(1) Use the back tension cassette gauge and set for the playback mode.
(2) Confirm reading of 60 to 100 g•cm.

SECTION 3
ELECTRICAL ADJUSTMENT

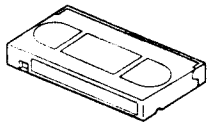
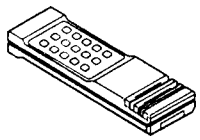
3.1 PRECAUTION

Electrical adjustment are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed. Also do not attempt these adjustments unless the proper equipments is available.

3.1.1 Required test equipment

① Colour television or monitor
② Oscilloscope: wide-band,dual-trace,triggered delayed sweep
③ Frequency counter
④ Digital voltmeter
⑤ Signal generator: RF/IF sweep/maker
⑥ Signal generator: PAL/SECAM colour bar, stairstep
⑦ Recording tape
⑧ Numeric-key remote controller(provided)

3.1.2 Required adjustment tools

Alignment tape (SP,stairstep) MHPE	Presetting unit PTU94008
	

3.1.3 Colour bar signal,colour bar pattern

● PAL colour bar signal

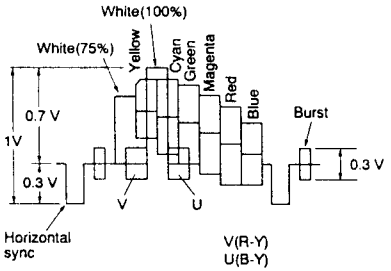


Fig.3-1-1 PAL colour bar signal waveform

● PAL colour bar pattern

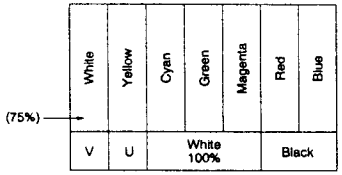


Fig.3-1-2 PAL colour bar pattern

● SECAM colour bar signal waveform

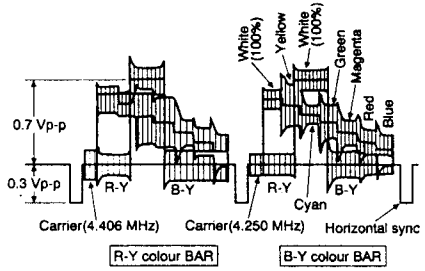


Fig.3-1-3 SEACM colour bar signal waveform

● SECAM colour bar pattern

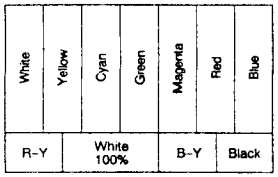


Fig.3-1-4 SECAM colour bar pattern

3.2 SERVO CIRCUIT

Notes: • *Unless otherwise specified,all measurement point and adjustment parts are located on the MAIN BOARD.*
• *Set VCR to the mode A by remote controller.*
• *Use only buttons "O", depressing other buttons during adjustment may cause adjustment errors.*

3.2.1 PB switching point

Signal	• Alignment tape [MHPE],Stairstep
Mode	• PB
Equipment	• Oscilloscope
Measurement point	• J1411- pin 19 (VIDEO OUT) [TERMINAL BOARD]
Trigger slope (-)	• TP111(DRUM FF), [PRE/REC BOARD]
Adjustment tool	• Presetting unit [PTU94008]
Specification	• 6.5 ± 0.5H

(1) Connect an oscilloscope to J1411- pin 19 (VIDEO OUT) and external trigger from TP111 (negative slope).
(2) Playback the stairstep signal of the alignment tape.
(3) Press the "O" button of the presetting unit.
(4) The adjustment is performed automatically.
Once the adjustment is performed, the VCR will go into the STOP mode.

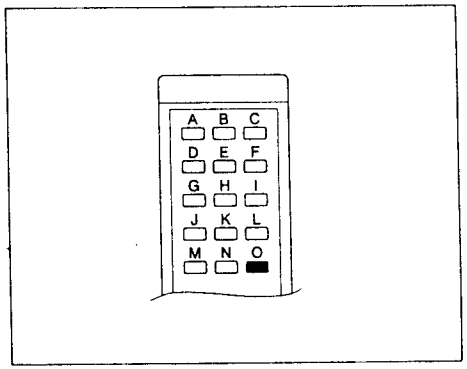


Fig.3-2-1 Presetting unit

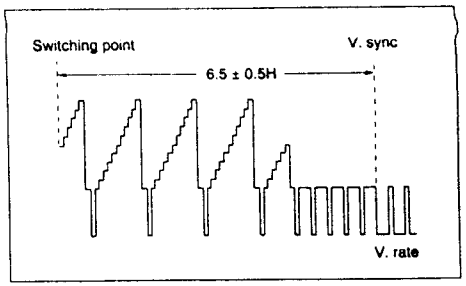


Fig.3-2-2 PB switching point

3.2.2 Slow tracking preset

Signal	• Tuner or colour bar
Mode	• SP/LP, REC → PB(SLOW)
Equipment	• TV-Monitor
Adjustment tool	• Presetting unit [PTU94008]
Specification	• Minimum noise

Note : ***Set VCR to the mode A by remote controller. Use only buttons "B" and "C", depressing other buttons during adjustment may cause adjustment errors.***

(1) Record a colour bar signal in the SP mode.
(2) Playback recorded signal on the FWD slow mode.
(3) Observe the display on the TV monitor and adjust for optimum noise condition (best tracking) by depressing "B " or "C " buttons of the presetting unit.
(4) Depress the STOP button.
(5) Confirm that the bar noise is not visible on the TV monitor in the slow mode.
(6) Repeat steps (2) to (5) in the LP mode.

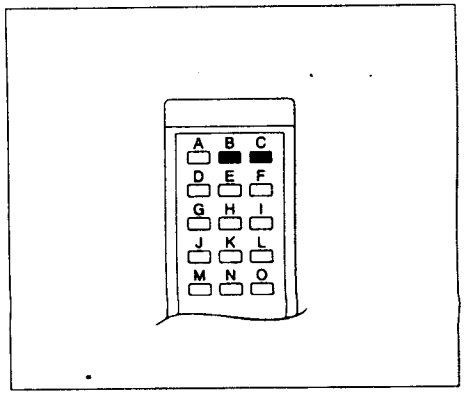


Fig.3-2-3 Presetting unit

3.3 VIDEO CIRCUIT

Notes: • *Unless otherwise specified,all measurement point and adjustment parts are located on the MAIN BOARD.*

• *Set VCR to the mode A by remote controller.*

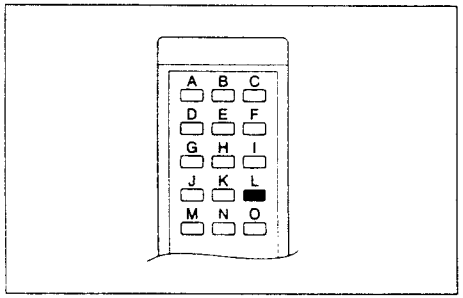


Fig.3-3-1 Presetting unit

3.3.1 Auto picture

Signal	• Monoscope
Mode	• REC then PB • SP/LP
Adjustment tool	• Presetting unit[PTU94008]
Specification	• STOP mode

(1) Record a monoscope signal in the SP mode.
(2) Playback the recorded signal.
(3) Press the "L" button of the presetting unit during playback.
(4) Confirm that VCR will go into the STOP mode.
(5) Repeat steps (2) to (4) in the LP mode.

3.4 SYSCON CIRCUIT

Notes: • *Unless otherwise specified,all measurement point and adjustment parts are located on the MAIN BOARD.*

• *When perform this adjustment,remove the MECHANISM assembly.*

3.4.1 Timer clock

Signal	• No signal
Mode	• EE
Equipment	• Frequency counter
Measurement point	• TP702 round(SYS.CLK)
Adjustment part	• C701 (TIMER CLOCK)
Specification	• 1024.008 ± 0.001 Hz [976.5549 ± 0.0010 μ sec]

(1) Connect the frequency counter to TP702 round and GND.
(2) Connect the short wire between TP701 round and Vcc(5V).
(3) Short the leads of capacitor C704 once in order to reset IC701.
(4) Disconnect the short wire then connect it again quickly.
(5) Adjust C701 for 1024.008 ± 0.001 Hz.
(976.5549 ± 0.0010μ sec)

3.5 TUNER CIRCUIT

Note: *Unless otherwise specified, all measurement points and adjustment parts are located on the IF BOARD.*

3.5.1 PIF VCO

Signal	• TV broadcasting (PAL B/G, SECAM-L)
Mode	• Tuner
Equipment	• Monitor-TV
Adjustment part	• T2103 (PIF VCO-2) (PAL B/G broadcast) • TC2101 (PIF VCO-1) (SECAM-L broadcast)
Specification	• Fine picture

(1) Receive a colour broadcast.
(2) Adjust T2103 (TC2101) to obtain a fine picture on the monitor.

3.5.2 SIF VCO

Signal	• TV broadcast (PAL B/G, SECAM-L)
Mode	• Tuner
Equipment	• Monitor-TV
Adjustmant part	• TC2102 (SIF VCO-1) (PAL B/G broadcast) • T2104 (SIF VCO-2) (SECAM-L broadcast)
Specification	• Maximum level

(1) Receive a colour broadcast.
(2) Adjust TC2102 (T2104) for maximum level at audio sound.

3.5.3 RF AGC

Signal	• TV broadcast
Mode	• Tuner
Equipment	• Monitor-TV
Adjustment parts	• VR2101 (RF AGC)
Specification	• Noise just disappears

Note: *Adjust VR2101 (RF AGC) to correct for excess noise in the picture or when streaks cross interference occurs due to strong electrical fields.*

(1) Receive a colour broadcast.
(2) Adjust VR2101 to minimize noise or streaks on the TV screen.
3) Adjust for noisy picture with strong signal. Then adjust until noise just disappears. Select other channels to confirm proper pick-up of channels.

3.5.4 33.4 MHz TRAP

Signal	• TV broadcast (SECAM-L)
Mode	• Tuner
Equipment	• Monitor-TV
Adjustment parts	• T2101 (33.4 MHz TRAP)
Specification	• Fine picture

(1) Receive a colour broadcast.
(2) Adjust T2101 to obtain a fine picture on the monitor.

3.5.5 40.4 MHz TRAP

Signal	• TV broadcast (PAL B/G)
Mode	• Tuner
Equipment	• Monitor-TV
Adjustment parts	• T2106 (40.4 MHz TRAP)
Specification	• Fine picture

(1) Receive a colour broadcast.
(2) Adjust T2106 to obtain a fine picture on the monitor.

3.6 DEMODULATOR CIRCUIT

Note: *Unless otherwise specified, all measurement points and adjustment parts are located on the DEMODULATOR BOARD.*

3.6.1 STEREO SEPARATION

Signal	• Sweep generator output (90 dBμ, 1 kHz)
Mode	• EE
Equipment	• Oscilloscope
Measurement point	• IC401-pin48 [MAIN board]
Adjustment part	• VR1501 (SEPARATION)
Specification	• Minimum

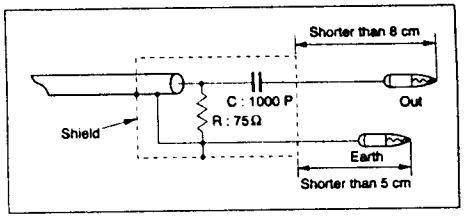


Fig. 3-6-1 Sweeper probe

(1) Use a sweeper probe as shown in Fig. 3-6-1.
(2) Supply 1 kHz R-only modulated IF signal to IF terminal of U/V tuner (front end).
(3) Connect an oscilloscope to IC401-pin48.
(4) Adjust VR1501 for minimum output level.

SECTION 4
CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufactures recommended parts.

1. Units of components on the schematic diagram

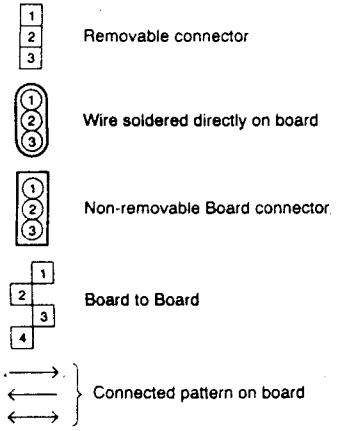
Unless otherwise specified.

1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in μF. (P: PF).
3) All inductance values are in μH, (m: mH).
4) All diodes are 1SS133, MA165 or IN4148M (refer to parts list).

2. Indications of control voltage

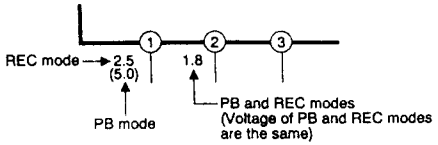
AUX : Active only at high.
$\overline{AUX}$ or AUX(L) : Active at low.

3. Interpreting Connector Indications



4. Voltage measurement

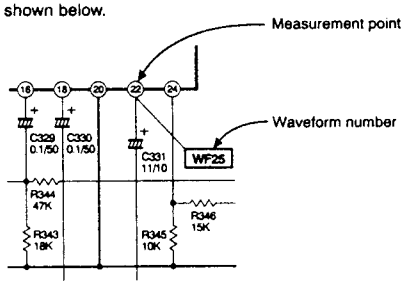
1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode.
   PB : Alignment tape, colour bar SP mode, normal VHS mode.
   — : Unmeasurable or unnecessary to measure.
2) Audio circuis
   REC : 1KHz, –8 dBs sine wave signal in SP mode, Normal VHS mode.
   PB : REC then playback it.
3) Movie Camera circuits
   Measured using a correctly illuminated grey scale or colour bar test charts in the E-E mode.
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.



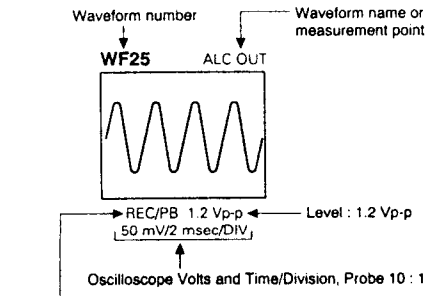
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Waveform measurement

1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode.
   PB : Alignment tape, colour bar SP mode, normal VHS mode.
2) Audio circuits
   REC : 1KHz, –8 dBs sine wave signal in SP mode, normal VHS mode.
   PB : REC then playback it.
3) Movie Camera circuits
   Measured using a correctly illuminated grey scale or colour bar test chatrs in the E-E mode.
4) Indication on schematic diagram
   Waveform indications on the schematic diagram are as shown below.



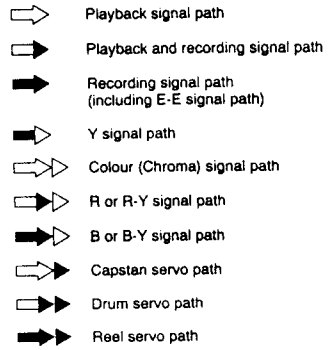
5) Waveform indications



Mode : REC or PB modes

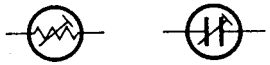
6. Signal path Symbols

The arrows indicate the signal path as follows.



7. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



8. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.
Or the symbol number is struck off by two lines as below.

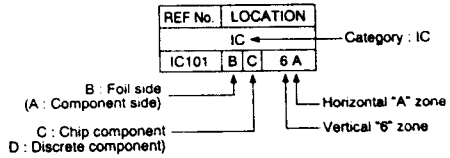
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

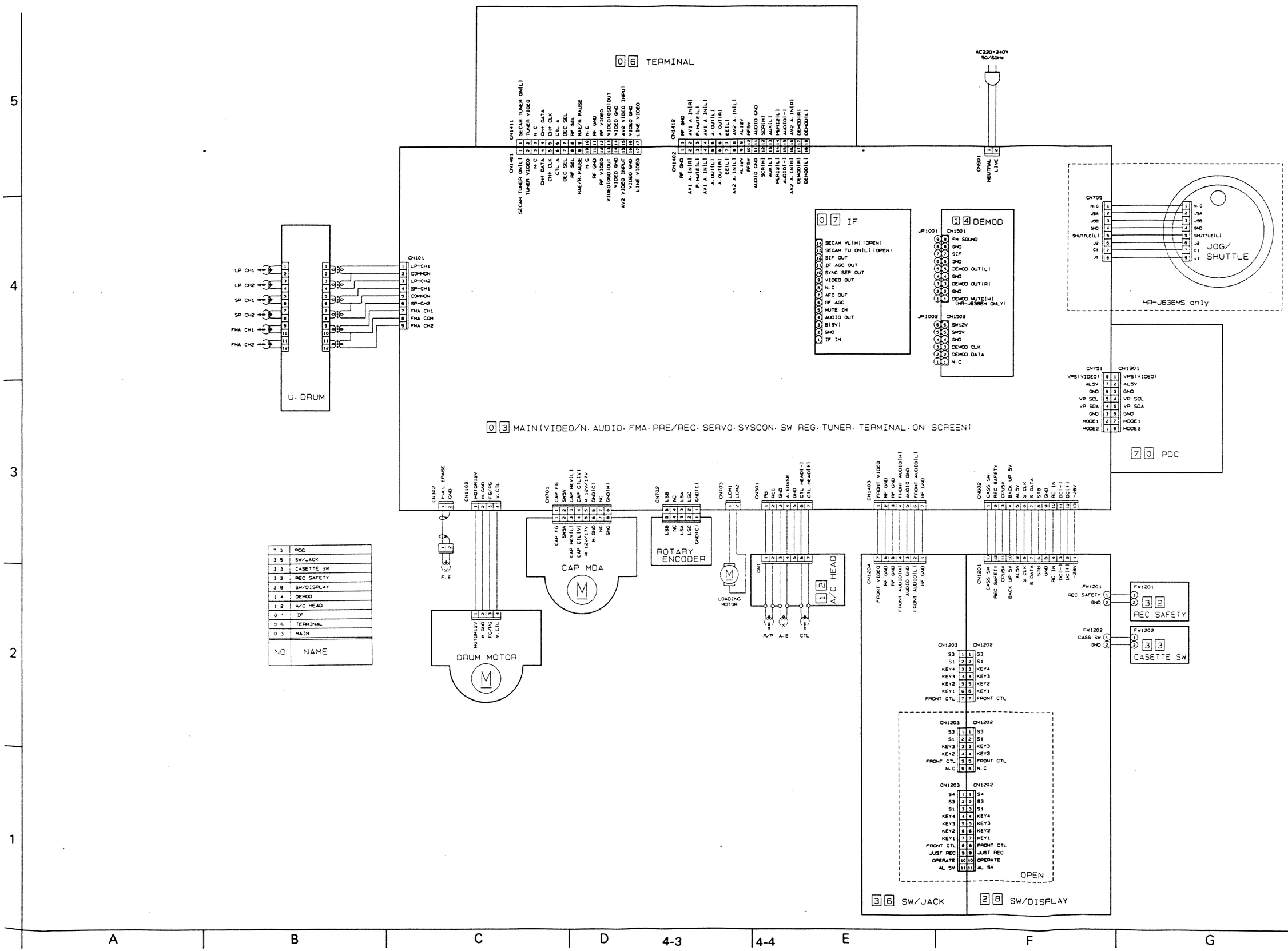
2. Parts location guides

Parts location are indicated by guide scale on the circuit board.



Notes:
1) **For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).**
2) **For repairing SMC (Surface Mounted Components), please refer to the VIDEO SERVICE GUIDE No. VTS81001.**

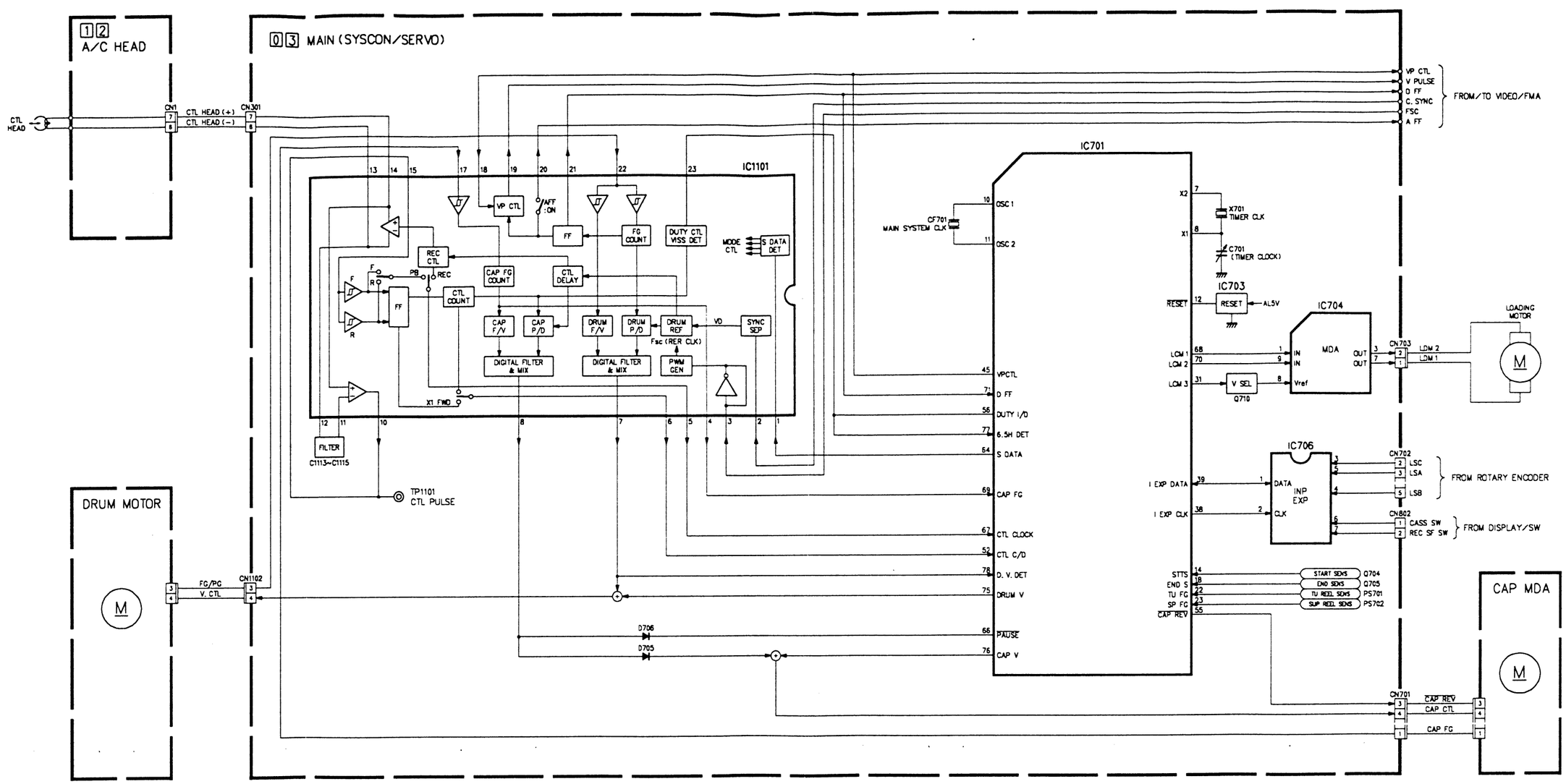
4.1 BOARD INTERCONNECTIONS



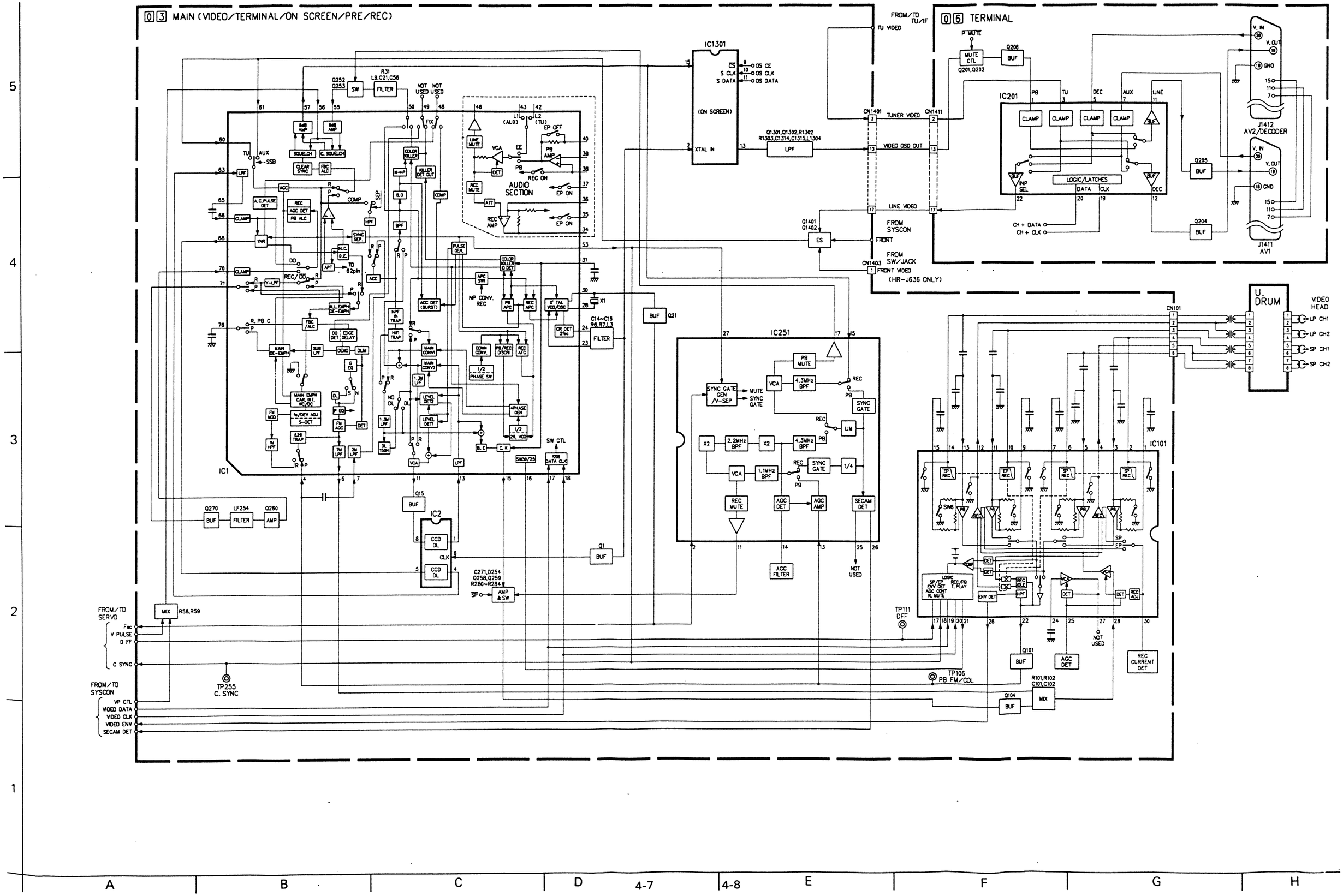
7 0	PDC
3 5	SW/JACK
3 3	CASETTE SW
3 2	REC SAFETY
2 8	SW/DISPLAY
1 4	DEMOD
1 2	A/C HEAD
0 7	IF
0 6	TERMINAL
0 3	MAIN

NO	NAME

4.2 SYSTEM CONTROL BLOCK DIAGRAM



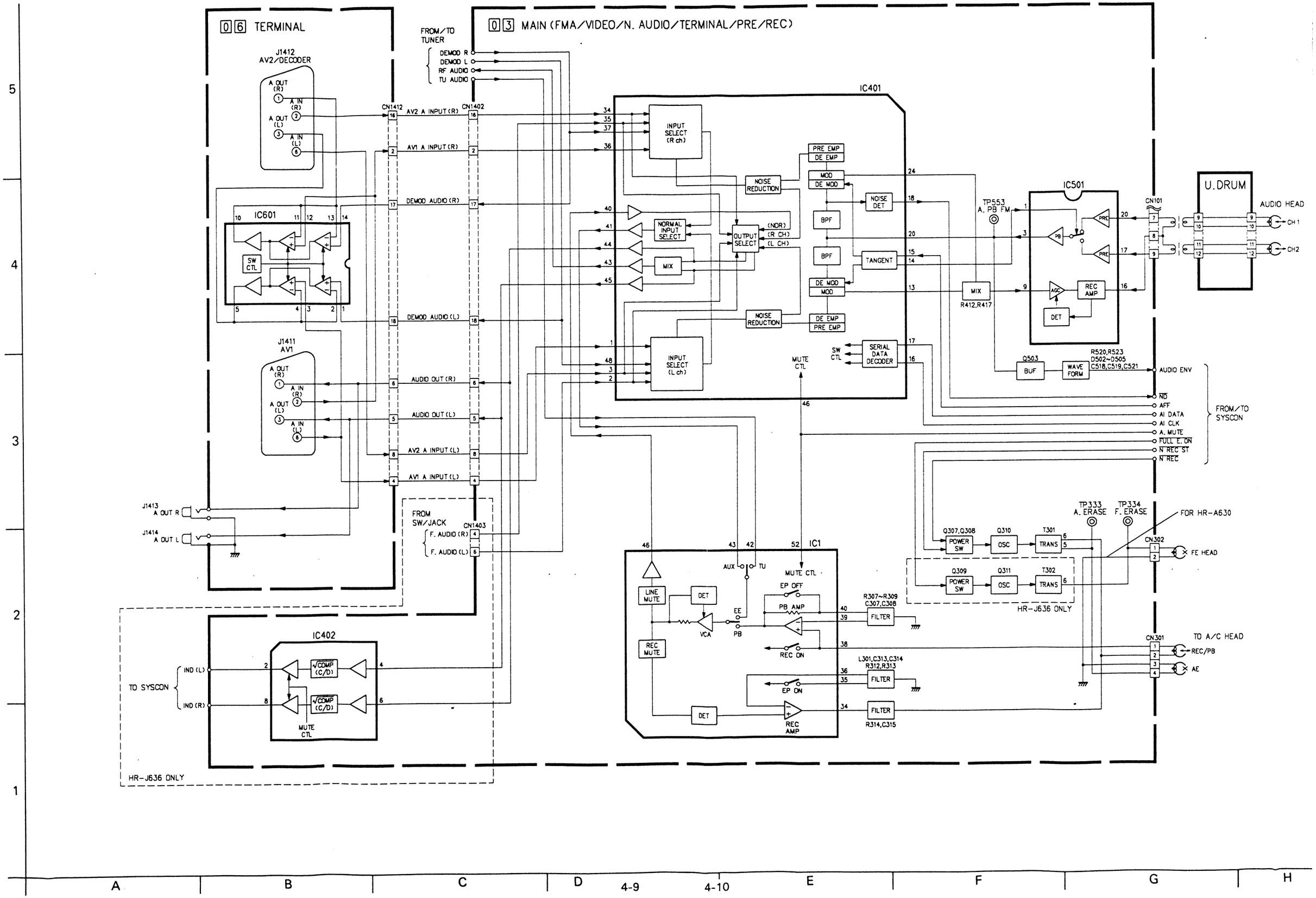
4.3 VIDEO BLOCK DIAGRAM



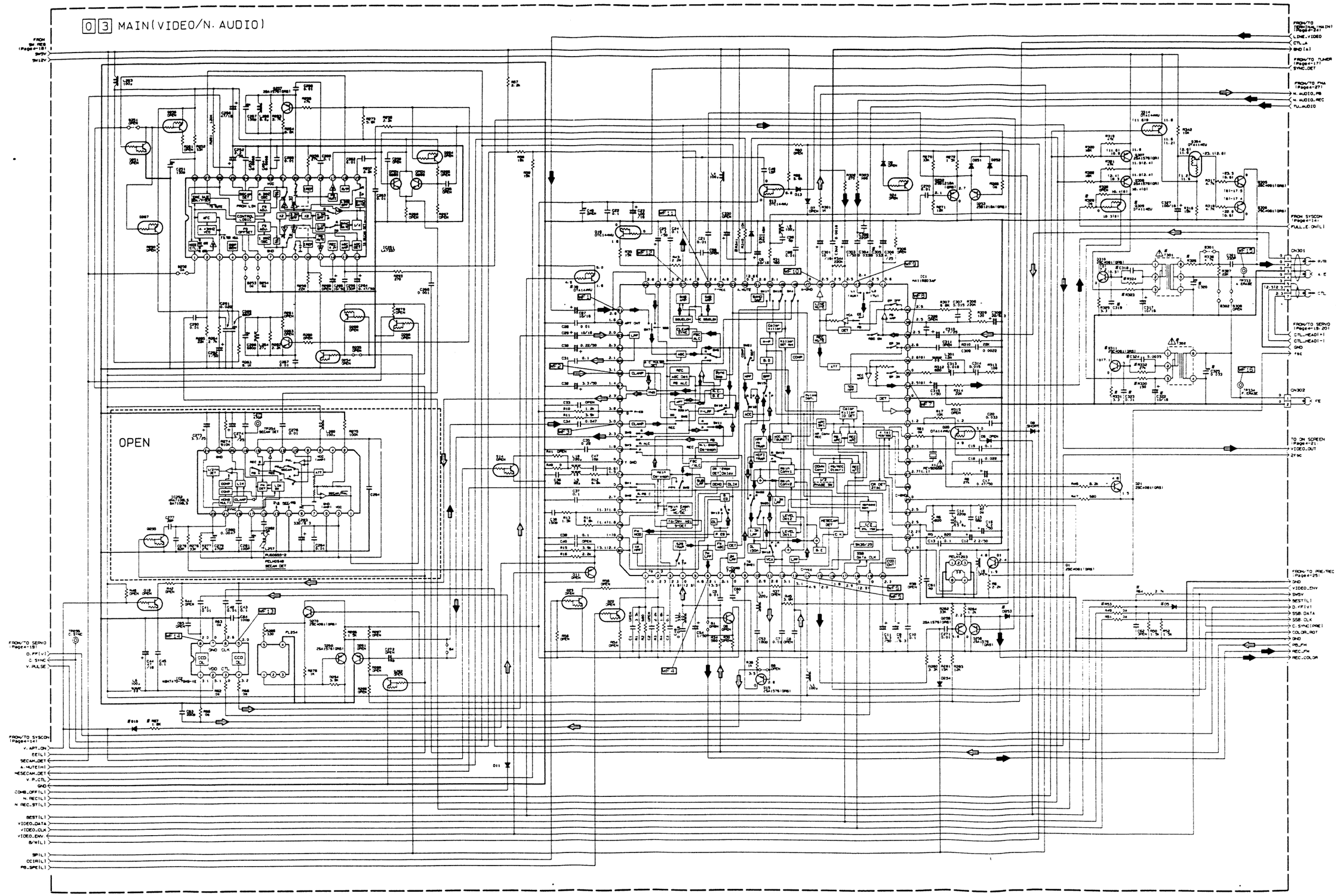
A B C D E F G H

4-7 4-8

4.4 AUDIO BLOCK DIAGRAM



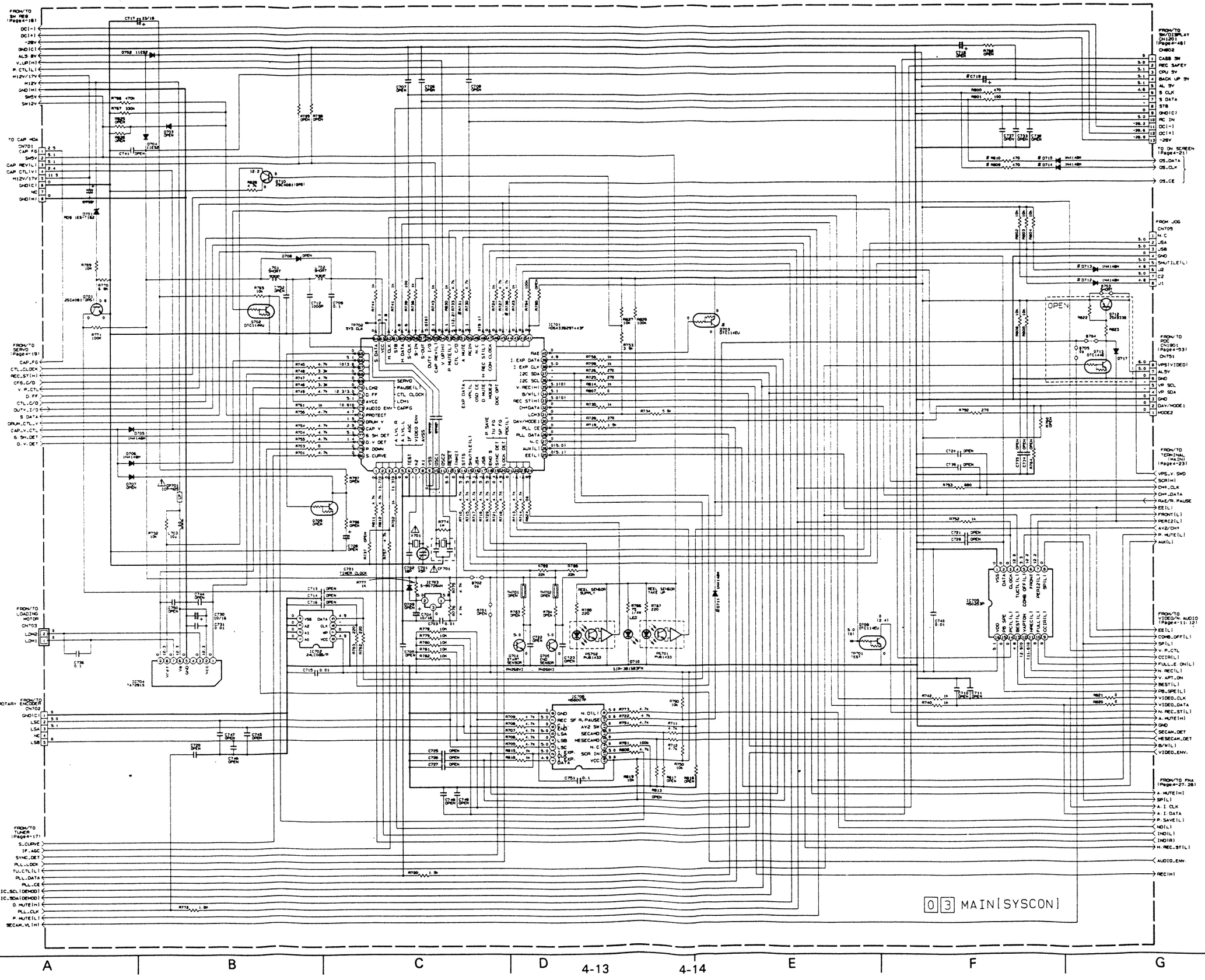
4.5 VIDEO AND AUDIO SCHEMATIC DIAGRAM



NOTES : 1. For VIDEO/N.AUDIO waveforms, please refer to page4-29.
2. COMPARISON CHART OF MODELS & MARKS(#)

	REF.NO.	Q9	Q309	Q311	D5	D10	D253	R53	R64	R67	R323	R324	R326	R329-R332	R341	C318	C319	C320	C322-C325	T302	T301
MODEL	HA-A630MS	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	33K	OPEN	OPEN	82	12K	5.6K	OPEN	10K	0.0047	0.022	0.082	OPEN	OPEN	PELN0832
	HA-A630MS(C)	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	33K	OPEN	OPEN	82	12K	5.6K	OPEN	10K	0.0047	0.022	0.082	OPEN	OPEN	PELN0832
	HA-J636MS	USED	USED	USED	USED	USED	USED	27K	USED	USED	100	15K	4.7K	USED	12K	0.0033	0.01	0.033	USED	USED	PELN0860

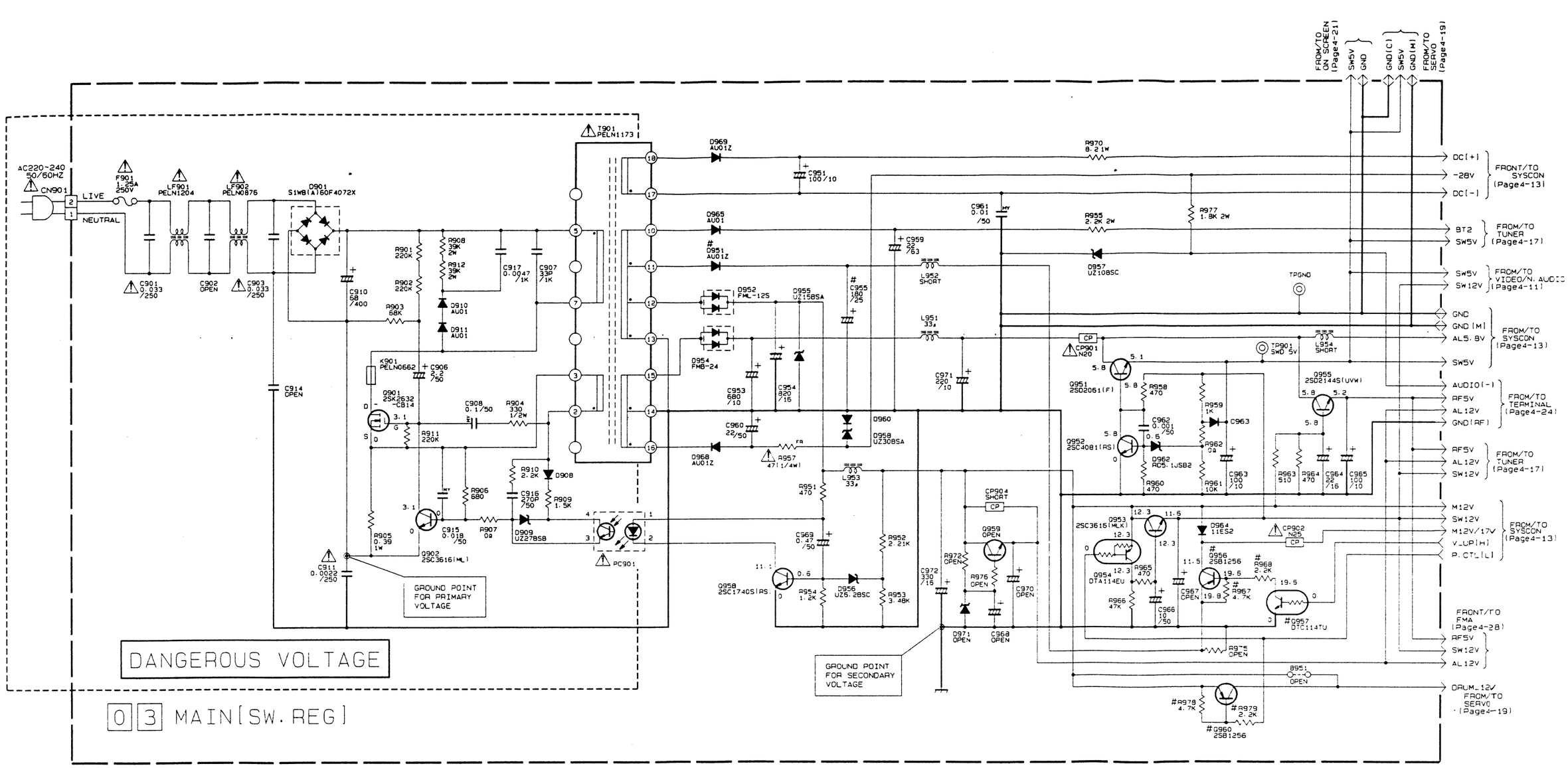
4.6 SYSTEM CONTROL SCHEMATIC DIAGRAM



A B C D E F G H

4-13 4-14

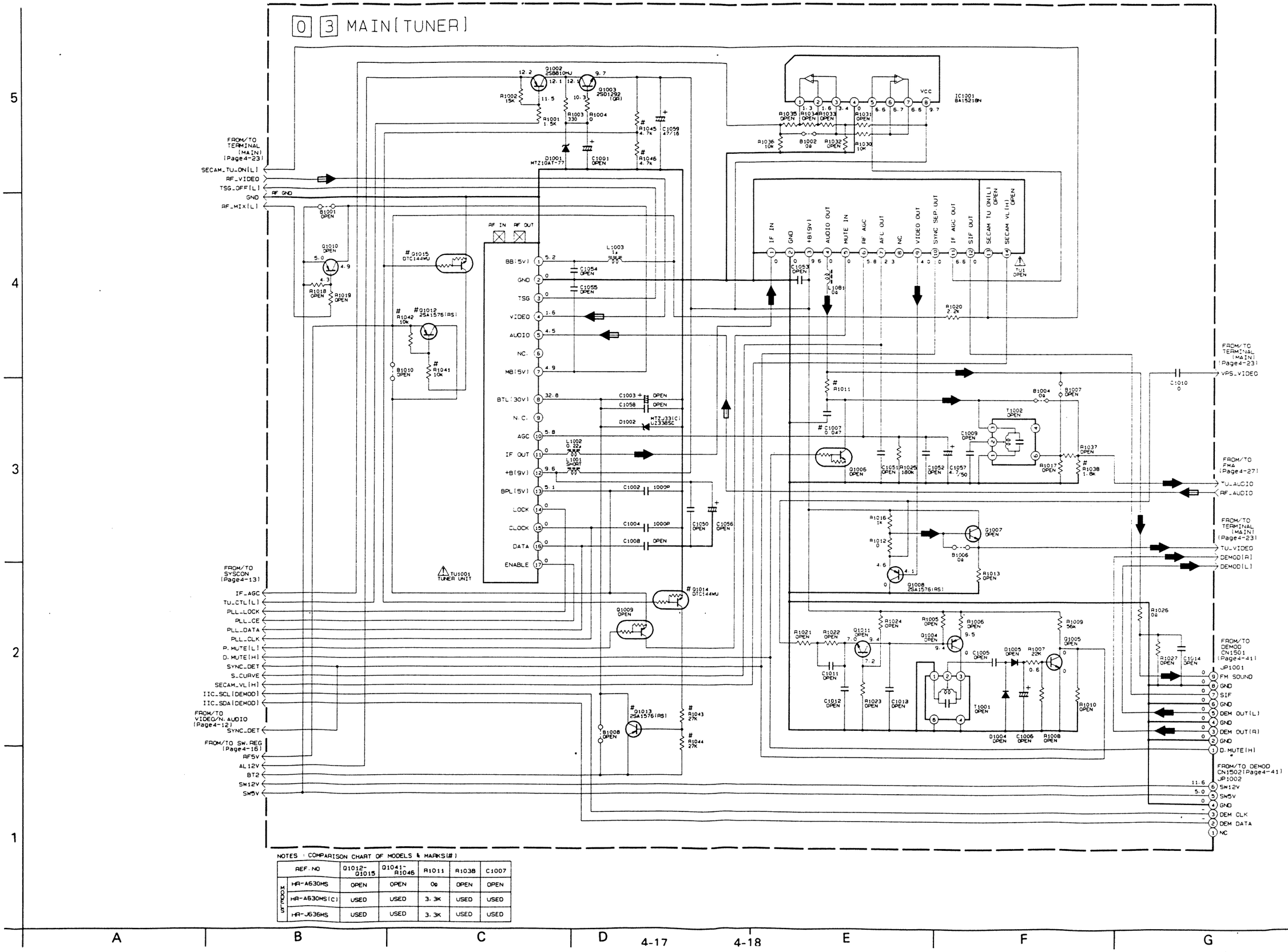
4.7 SWITCHING REGULATOR SCHEMATIC DIAGRAM



NOTE : COMPARISON CHART OF MODELS & MARKS(#)

REF. NO.		Q956	Q957	Q960	D951	R978	R979	R967	R968	C955
MODEL	HR-A630MS	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN
	HR-A630MS(C)	OPEN	OPEN	USED	OPEN	USED	USED	OPEN	OPEN	OPEN
	HR-J636MS	USED	USED	USED	USED	USED	USED	USED	USED	USED

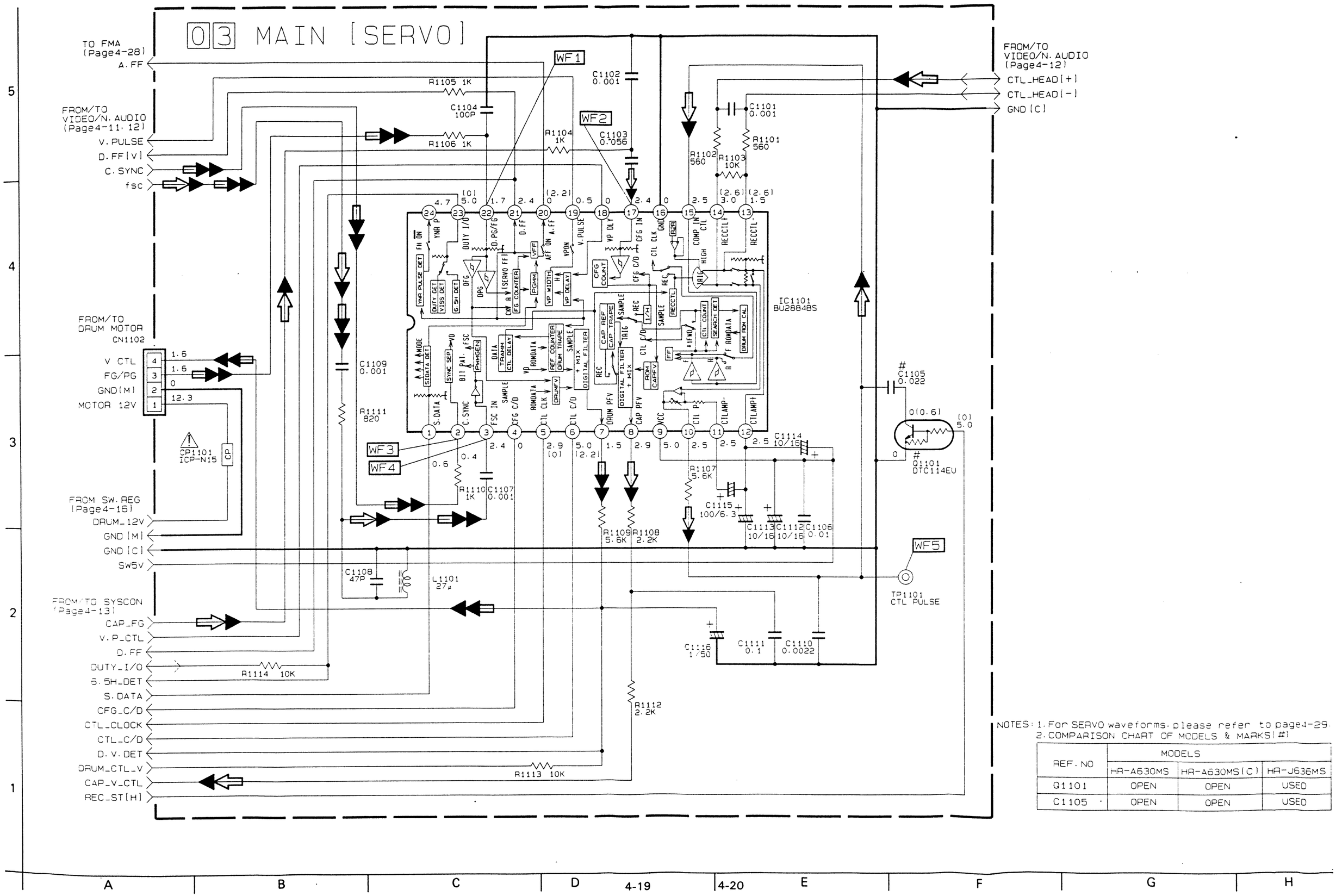
4.8 TUNER SCHEMATIC DIAGRAM



NOTES : COMPARISON CHART OF MODELS & MARKS(#)

REF.NO		Q1012-Q1015	Q1041-R1046	R1011	R1038	C1007
UNIT MODEL	HA-A630MS	OPEN	OPEN	0Ω	OPEN	OPEN
	HA-A630MS(C)	USED	USED	3.3K	USED	USED
	HA-J636MS	USED	USED	3.3K	USED	USED

4.9 SERVO SCHEMATIC DIAGRAM

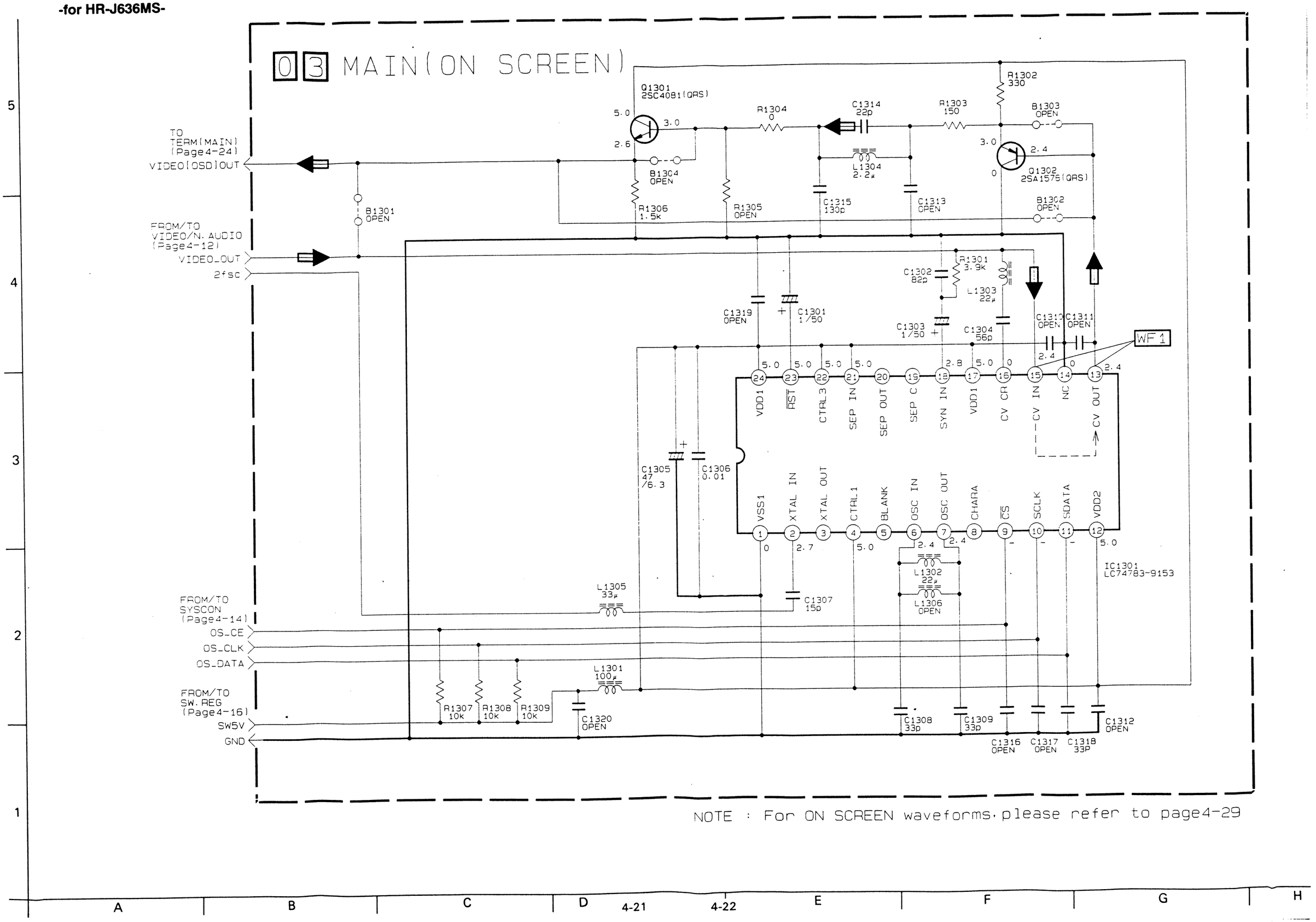


NOTES: 1. For SERVO waveforms, please refer to page4-29.
2. COMPARISON CHART OF MODELS & MARKS(#)

REF. NO	MODELS		
	HR-A630MS	HR-A630MS(C)	HR-J636MS
Q1101	OPEN	OPEN	USED
C1105	OPEN	OPEN	USED

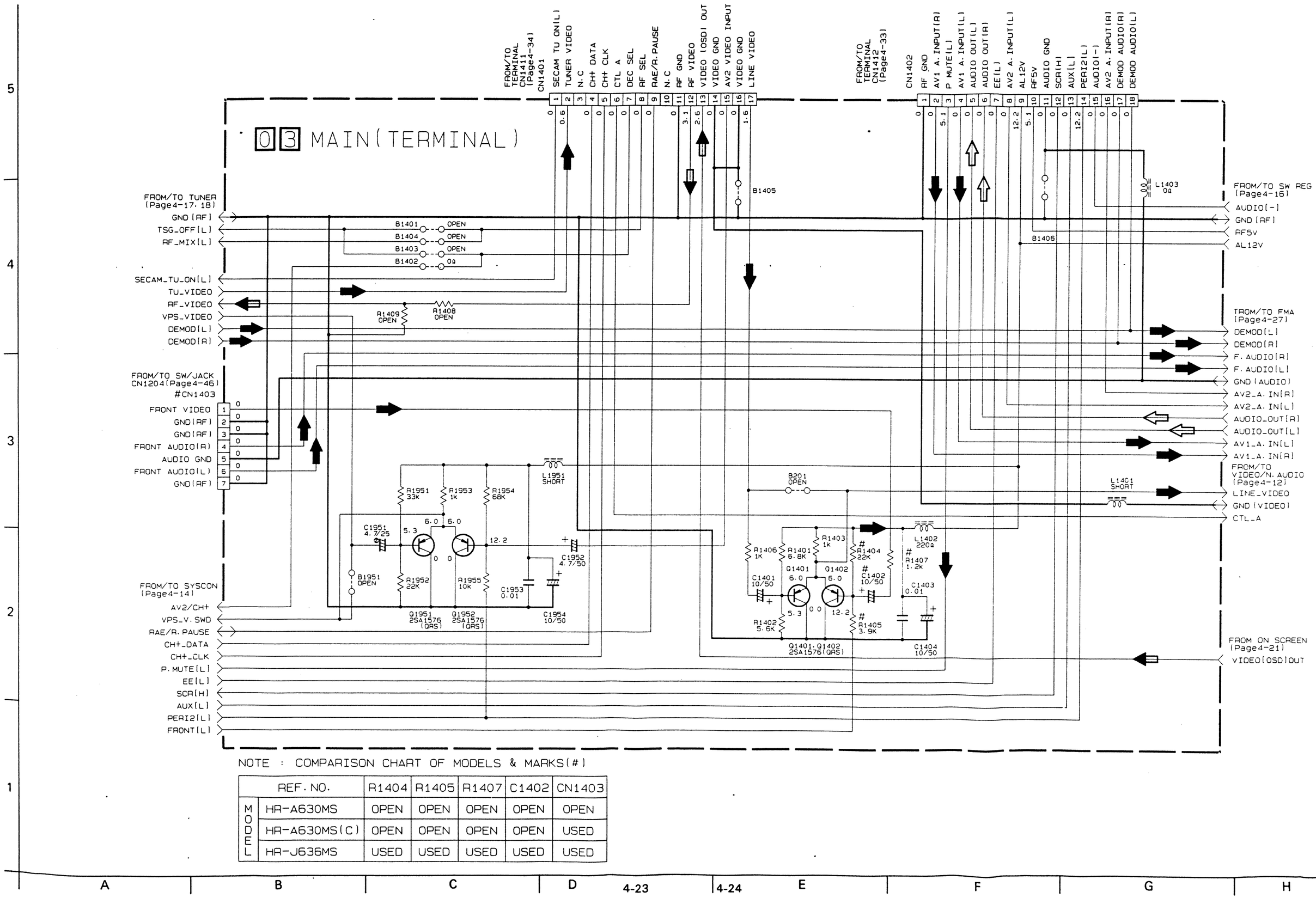
4.10 ON SCREEN SCHEMATIC DIAGRAM

-for HR-J636MS-



NOTE : For ON SCREEN waveforms, please refer to page4-29

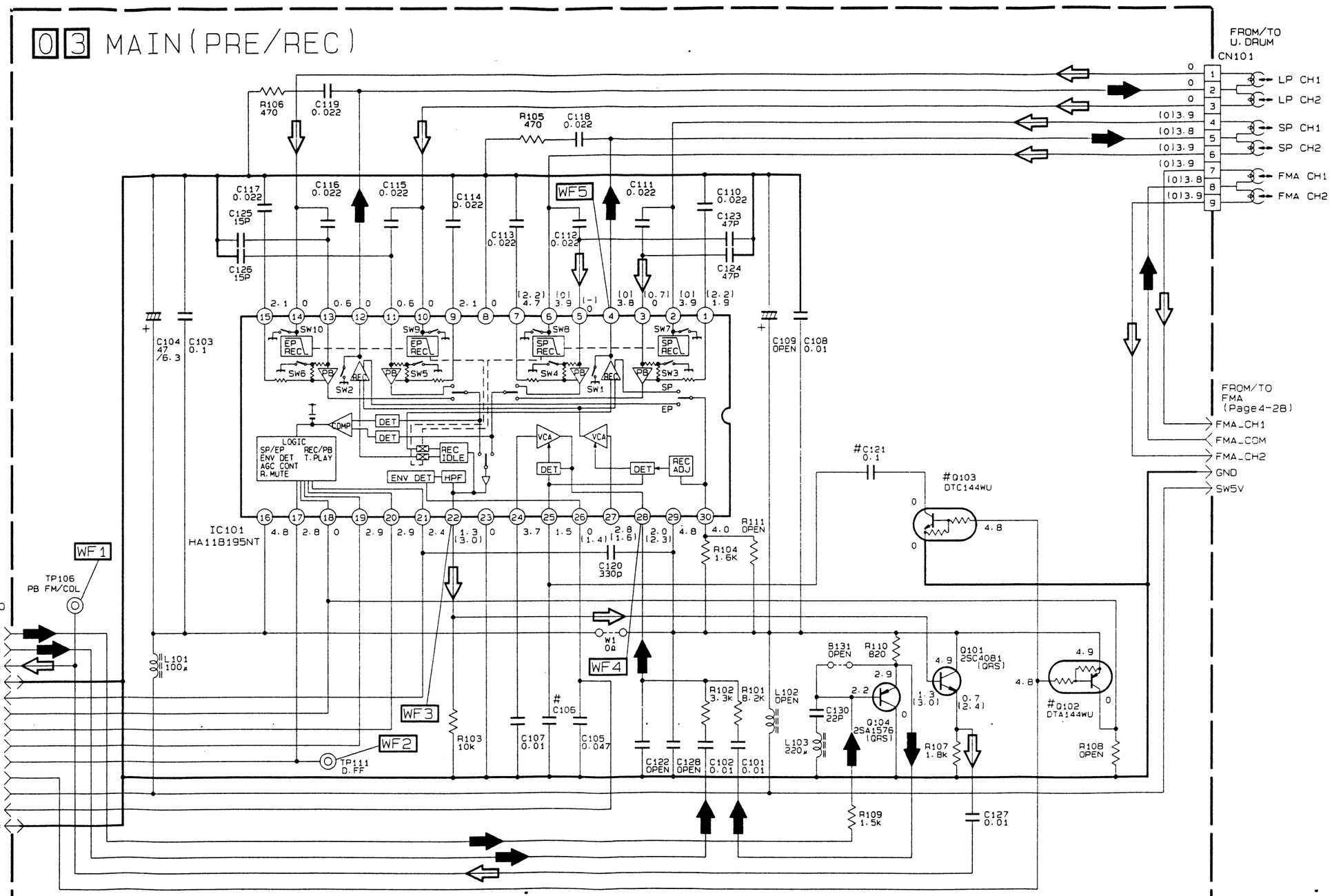
4.11 TERMINAL (MAIN) SCHEMATIC DIAGRAM



NOTE : COMPARISON CHART OF MODELS & MARKS(#)

REF. NO.		R1404	R1405	R1407	C1402	CN1403
MODEL	HR-A630MS	OPEN	OPEN	OPEN	OPEN	OPEN
	HR-A630MS(C)	OPEN	OPEN	OPEN	OPEN	USED
	HR-J636MS	USED	USED	USED	USED	USED

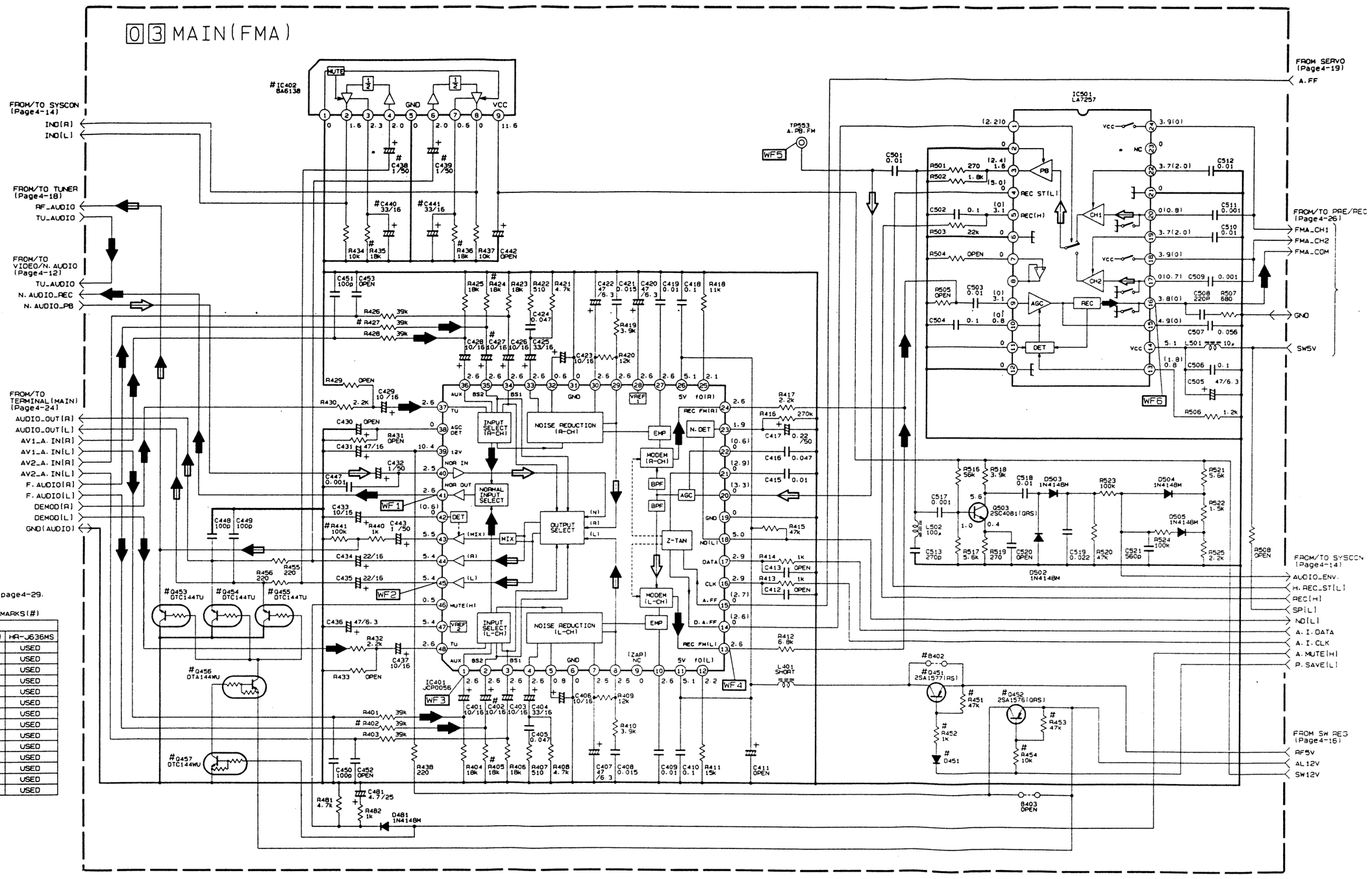
4.12 PRE/REC SCHEMATIC DIAGRAM



NOTES : 1. For PRE/REC waveforms. please refer to page4-29.
2. COMPARISON CHART OF MODELS & MARKS(#)

REF. NO.		Q102	Q103	C106	C121
MODEL	HR-A630MS	OPEN	OPEN	0.1	OPEN
	HR-A630MS(C)	OPEN	OPEN	0.1	OPEN
	HR-J636MS	USED	USED	2700P	USED

4.13 FMA SCHEMATIC DIAGRAM



NOTES : 1. For FMA waveforms. please refer to page4-29.

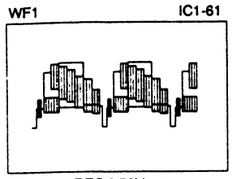
2. COMPARISON CHART OF MODELS & MARKS(#)

REF. NO	MODELS		
	HR-A630MS	HR-A630MS(C)	HR-J636MS
IC402	OPEN	OPEN	USED
D451-D457	OPEN	USED	USED
D451	OPEN	OPEN	USED
R402	OPEN	OPEN	USED
R405	OPEN	OPEN	USED
R424	OPEN	OPEN	USED
R427	OPEN	OPEN	USED
R435	OPEN	OPEN	USED
R436	OPEN	OPEN	USED
R441	OPEN	OPEN	USED
R451-R454	OPEN	OPEN	USED
C402	OPEN	OPEN	USED
C427	OPEN	OPEN	USED
C438-C441	OPEN	OPEN	USED

WAVEFORMS

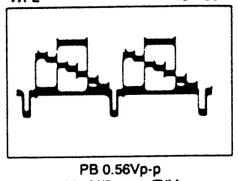
— VIDEO / N.AUDIO —

WF1 IC1-61



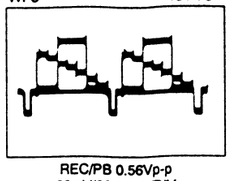
REC 0.72Vp-p
20mV/20 μsec /DIV

WF2 IC1-66



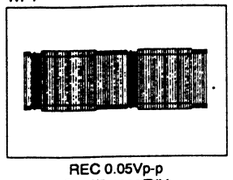
PB 0.56Vp-p
20mV/5 μsec /DIV

WF3 IC1-70



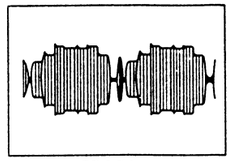
REC/PB 0.56Vp-p
20mV/20 μsec /DIV

WF4 IC1-6



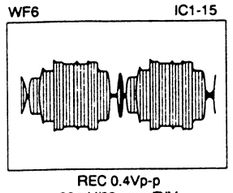
REC 0.05Vp-p
5mV/5msec/DIV

WF5 IC1-13



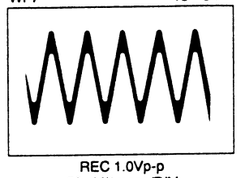
PB 0.6Vp-p
20mV/20 μsec/DIV

WF6 IC1-15



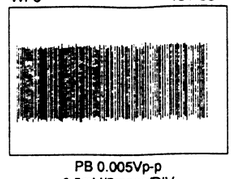
REC 0.4Vp-p
20mV/20 μsec/DIV

WF7 IC1-34



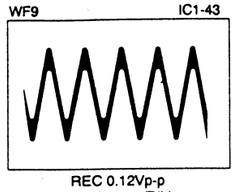
REC 1.0Vp-p
50mV/1msec/DIV

WF8 IC1-38



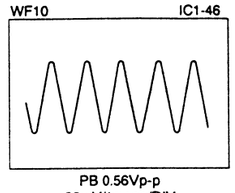
PB 0.005Vp-p
0.5mV/5msec/DIV

WF9 IC1-43



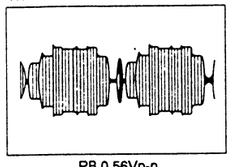
REC 0.12Vp-p
5mV/1msec/DIV

WF10 IC1-46



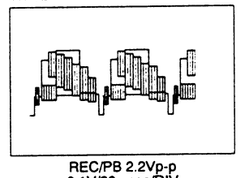
PB 0.56Vp-p
20mV/1msec/DIV

WF11 IC1-55



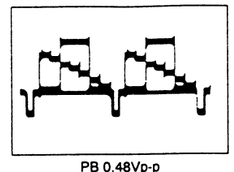
PB 0.56Vp-p
20mV/20 μsec/DIV

WF12 IC1-57



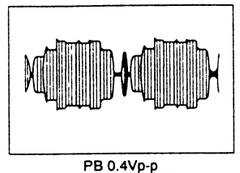
REC/PB 2.2Vp-p
0.1V/20 μsec/DIV

WF13 IC2- 5



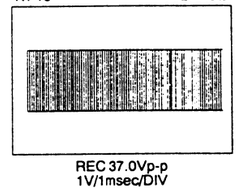
PB 0.48Vp-p
20mV/20 μsec/DIV

WF14 IC2- 8



PB 0.4Vp-p
20mV/20 μsec/DIV

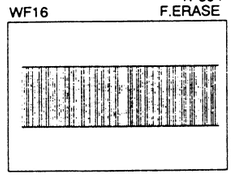
WF15 TP333 A.ERASE



REC 37.0Vp-p
1V/1msec/DIV

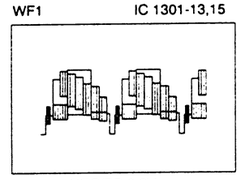
— ON SCREEN —

WF16 TP334 F.ERASE



REC 40.0Vp-p
1V/1msec/DIV

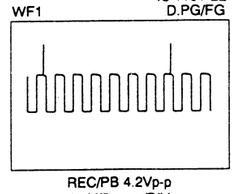
WF1 IC 1301-13,15



REC/PB 2.2Vp-p
0.1V/20 μsec/DIV

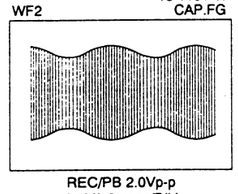
— SERVO —

WF1 IC 1101-22 D.PG/FG



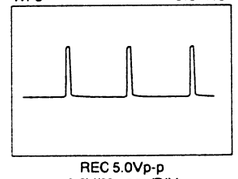
REC/PB 4.2Vp-p
0.1V/5msec/DIV

WF2 IC 1101-17 CAP.FG



REC/PB 2.0Vp-p
0.1V/10msec/DIV

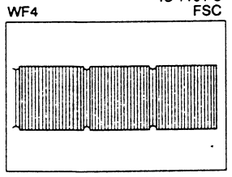
WF3 IC 1101-2 C.SYNC



REC 5.0Vp-p
0.2V/20 μsec/DIV

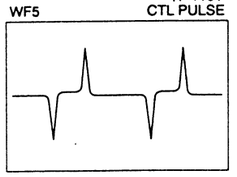
— PRE / REC —

WF4 IC 1101-3 FSC



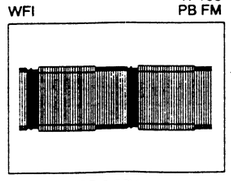
REC/PB 0.44Vp-p
20mV/5msec/DIV

WF5 TP 1101 CTL PULSE



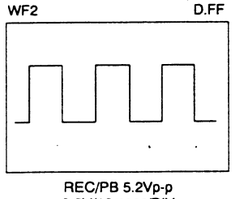
PB 3.0Vp-p
0.1V/10msec/DIV

WFI TP106 PB FM



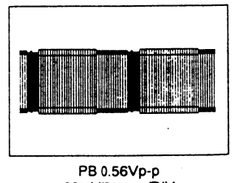
PB 0.56Vp-p
20mV/5msec/DIV

WF2 TP111 D.FF



REC/PB 5.2Vp-p
0.2V/10msec/DIV

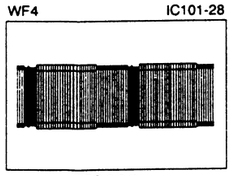
WF3 IC101-22



PB 0.56Vp-p
20mV/5msec/DIV

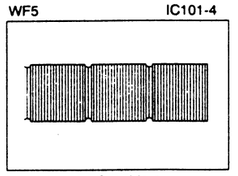
— FMA —

WF4 IC101-28



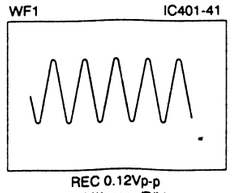
REC 0.04Vp-p
2mV/5msec/DIV

WF5 IC101-4



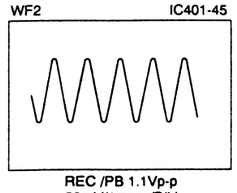
REC 3.3Vp-p
0.1V/5msec/DIV

WF1 IC401-41



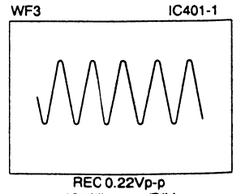
REC 0.12Vp-p
5mV/1msec/DIV

WF2 IC401-45



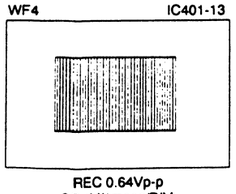
REC /PB 1.1Vp-p
50mV/1msec/DIV

WF3 IC401-1



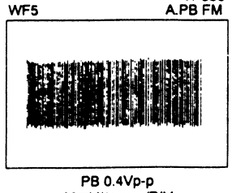
REC 0.22Vp-p
10mV/1msec/DIV

WF4 IC401-13



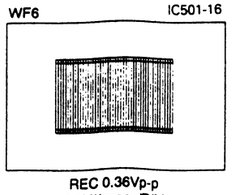
REC 0.64Vp-p
20mV/1msec/DIV

WF5 TP553 A.PB FM



PB 0.4Vp-p
20mV/1msec/DIV

WF6 IC501-16



REC 0.36Vp-p
0.2V/1msec/DIV

COMPONENT PARTS LOCATION GUIDE MAIN PWB

REF.NO.	LOCATION
CAPACITOR	
C1	B C 7F
C2	B C 8F
C3	B C 8G
C5	B C 8G
C6	A C 6I
C7	B C 9G
C8	A C 9F
C9	B C 8I
C10	A C 9G
C11	B C 9G
C12	A C 9H
C13	A C 8H
C14	B C 9H
C15	B C 9H
C16	A C 9H
C17	A C 10H
C18	B C 8I
C19	B C 8I
C20	A C 8I
C21	B C 6H
C22	B C 7G
C23	B C 6G
C24	B C 5H
C25	A C 5H
C27	B C 5G
C28	B C 6G
C29	B C 6G
C30	B C 5G
C31	A C 6G
C32	B C 5F
C33	B C 6F
C34	B C 6G
C35	B C 6G
C36	B C 6F
C37	B C 7F
C38	B C 6F
C39	B C 7F
C40	B C 7G
C41	B C 7D
C42	B C 8D
C43	B C 6D
C44	B C 8D
C45	B C 7D
C46	A C 7H
C47	B C 7G
C48	B C 9E
C49	B C 8H
C50	B C 8F
C53	B C 8F
C54	B C 8G
C56	A C 6I
C58	B C 6I
C59	B C 5H
C60	B C 8G
C61	B C 9H
C62	B C 15I
C63	B C 7D
C64	B C 8D
C65	B C 7D
C69	A C 6H
C101	B C 13I
C102	B C 13I
C103	B C 14J
C104	A C 15J
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C111	B C 13K
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C117	B C 14J
C118	B C 13K
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C122	B C 13J
C123	B C 13J
C124	B C 13J
C125	B C 14J
C126	B C 14J
C127	B C 14I
C128	B C 13I
C129	B C 13J
C130	B C 13H
C131	B C 12H
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C263	B C 21G
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C265	B C 21G
C266	B C 19F
C267	B C 19G
C268	B C 19G
C269	B C 6J
C270	B C 7E
C271	B C 5F
C272	B C 19B
C273	B C 19B
C274	B C 20B
C275	B C 20B
C276	B C 19A
C277	B C 20A
C278	B C 19B
C279	B C 20B
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C283	B C 21B
C284	B C 18H
C290	B C 19H
C291	B C 19H
C292	B C 21B
C294	B C 21F
C295	B C 19F
C296	B C 6I
C297	B C 7I
C301	B C 7J
C302	B C 7J
C303	B C 7J
C304	B C 7I
C305	B C 7I
C306	B C 7J
C307	B C 7J
C308	B C 7J
C309	B C 7J
C310	A C 8J

REF.NO.	LOCATION
C311	B C 8J
C313	A C 8K
C314	A C 8K
C315	A C 8I
C317	A C 7M
C318	B C 7M
C319	B C 6M
C320	A C 7L
C321	B C 7L
C322	B C 8N
C323	B C 7N
C324	B C 7O
C325	B C 8N
C326	B C 8J
C327	B C 6M
C328	B C 7I
C330	B C 5J
C401	A C 13N
C402	A C 13M
C403	A C 12M
C404	A C 12L
C405	B C 13L
C406	A C 13M
C407	A C 13M
C408	B C 13L
C409	B C 14M
C410	B C 14M
C411	B C 11N
C412	B C 15M
C413	B C 15M
C414	B C 15M
C415	B C 15M
C416	B C 15M
C417	B C 15M
C418	B C 15N
C419	B C 15N
C420	A D 15N
C421	B C 15O
C422	B D 15O
C423	B C 15O
C424	A D 14O
C425	B C 15O
C426	A D 14O
C427	A D 14O
C428	A D 14O
C429	A D 14O
C430	A D 13O
C431	A D 13N
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C433	A D 13O
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C440	A D 13E
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C443	A D 13O
C447	A D 13O
C448	B C 12O
C449	B C 12N
C450	B C 12M
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C452	B C 12M
C453	B C 12N
C481	B C 16J
C501	B C 16J
C502	B C 15J
C503	B C 15J
C504	B C 15I
C505	B C 15K
C506	B C 15K
C507	B C 15K
C508	B C 16K
C509	B C 16K
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C511	B C 16K
C512	B C 17J
C513	B C 17J
C517	B C 17J
C518	B C 16J
C519	B C 16J
C520	B C 17I
C521	A D 14D
C701	A D 14D
C702	B C 15C
C703	B C 13D
C704	B C 16C
C705	B C 16F
C706	B C 16F
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C708	B C 16F
C709	B C 16F
C710	B C 15F
C711	B C 18C
C712	B C 17C
C713	B C 18C
C714	B C 4B
C715	B C 2C
C716	A D 1B
C717	A D 17G
C718	A D 15H
C719	A D 4E
C720	B C 18D
C721	B C 17C
C722	B C 12B
C723	B C 13B
C724	B C 12B
C725	B C 15G
C726	B C 6O
C727	B C 6O
C728	B C 2B
C729	B C 2B
C730	B C 22E
C731	B C 22E
C732	B C 5L
C733	B C 1B
C734	B C 10I
C735	B C 17G
C736	B C 15H
C737	B C 4A
C738	B C 15D
C739	B C 16F
C740	B C 6O
C741	B C 7B
C742	B C 7B
C743	B C 6B
C744	B C 3B
C745	B C 3B
C746	B C 7O
C747	B C 13C
C748	B C 15F
C749	B C 2P
C750	B C 3P
C751	B C 2N
C752	B C 3L
C901	A D 2K
C902	A D 2K
C903	A D 2L
C906	A D 3K
C907	A D 3K

REF.NO.	LOCATION
C908	A D 2K
C910	A D 2M
C911	A D 1M
C914	A D 2N
C915	A D 2K
C916	A D 4L
C917	A D 3K
C951	A D 1H
C953	A D 2H
C954	A D 4H
C955	A D 4H
C959	A D 4G
C960	A D 2H
C961	A D 1G
C962	B C 2F
C963	A D 1F
C964	A D 3E
C965	A D 3D
C966	A D 2F
C967	A D 2E
C968	A D 3E
C969	A D 4I
C970	A D 4E
C971	A D 2G
C972	A D 2G
C1001	A D 19O
C1002	B C 19L
C1003	B C 19M
C1004	B C 19L
C1005	B C 21O
C1006	A D 21O
C1007	B C 20J
C1008	B C 19K
C1009	B C 20J
C1010	B C 21N
C1011	B C 20O
C1012	B C 20O
C1013	B C 20O
C1014	B C 20I
C1050	B C 20L
C1051	B C 21M
C1052	B C 21M
C1053	B C 21L
C1054	B C 19P
C1055	B C 20O
C1056	A D 19L
C1057	B C 19M
C1058	B C 19M
C1059	B C 21O
C1101	B C 8L
C1102	B C 9L
C1103	B C 9M
C1104	B C 9L
C1105	B C 9M
C1106	B C 9L
C1107	B C 9L
C1108	B C 10L
C1109	B C 10L
C1110	B C 9M
C1111	B C 9L
C1112	A D 9L
C1113	A D 9K
C1114	A D 9L
C1115	A D 9L
C1116	A D 9K
C1301	A D 18N
C1302	B C 17N
C1303	B C 17N
C1304	B C 17N
C1305	A D 16M
C1306	B C 18M
C1307	B C 16M
C1308	B C 17M
C1309	B C 17M
C1310	B C 17N
C1311	B C 16N
C1312	B C 16M
C1313	B C 17N
C1314	B C 18N
C1315	B C 18N
C1316	B C 17M
C1317	B C 17M
C1318	B C 17M
C1320	B C 16M
C1401	A D 11O
C1402	A D 11O
C1403	B C 10O
C1404	A D 10O
C1951	A D 17O
C1952	A D 16O
C1953	B C 18O
C1954	A D 18O

CONNECTOR

CN101	A	D	14K
CN301	A	D	7L
CN302	A	D	9N
CN701	A	D	10J
CN702	A	D	6B
CN703	A	D	6L
CN705	A	D	3B
CN751	A	D	22E
CN802	A	D	2A
CN901	A	D	1O
CN1102	A	D	11M
CN1401	A	D	16P
CN1402	A	D	11P
CN1403	A	D	22B

CIRCUIT PROTECTOR

CP701	A	D	8O
CP901	A	D	2F
CP902	A	D	3F
CP904	A	D	3E
CP1101	A	D	11M

DIODE

D5	A	D	15I
D6	A	D	8E
D7	A	D	6J
D8	A	D	8E
D9	A	D	6J
D10	A	D	9E
D11	A	D	9F
D13	A	D	5H
D14	A	D	8F
D251	A	D	6J
D252	A	D	8E
D253	A	D	7E
D254	A	D	7E
D255	A	D	21G
D301	A	D	6J
D451	A	D	11N
D481	A	D	12O
D502	A	D	16J
D503	A	D	17I
D504	A	D	16I
D505	A	D	17I
D701	A	D	11D
D702	A	D	4B
D703	A	D	11D
D704	A	D	4B

REF.NO.	LOCATION
D705	A D 14F
D706	A D 15F
D707	A D 15F
D708	A D 15F
D709	A D 14C
D710	A D 11E
D711	A D 18D
D712	A D 3B
D713	A D 3B
D714	A D 18G
D715	A D 17G
D717	A D 19H
D901	A B C 2N
D908	A D 3L
D909	A D 4L
D910	A D 4L
D911	A D 3K
D951	A D 4I
D952	A D 3H
D954	A D 2H
D955	A D 3I
D956	A D 4J
D957	A D 1E
D958	A D 1F
D960	A D 2F
D962	A D 2E
D963	A D 3G
D964	A D 4I
D965	A D 1H
D968	A D 1I
D969	A D 3F
D971	A D 19O
D1001	A D 19O
D1002	A D 19M
D1004	A D 21O
D1005	A D 21O

IC

IC1	B	C	7H
IC2	B	C	7D
IC101	A	D	13K
IC251	A	D	18F
IC252	A	D	21B
IC401	A	D	14N
IC402	A	D	13E
IC501	A	D	16K
IC701	B	C	15E
IC702	A	D	17C
IC703	A	D	14D
IC704	A	D	6O
IC705	A	D	14G
IC706	A	D	13C
IC1001	A	D	22L
IC1101	A	D	10L
IC1301	A	D	18M

COIL

L1	A	D	9I
L2	A	D	9H
L3	A	D	9H
L4	A	D	6H
L5	A	D	9K
L6	A	D	9D
L7	A	D	9F
L9	A	D	6I
L10	A	D	6F
L11	A	D	10E
L12	A	D	8F
L13	A	D	9H
L101	A	D	15I
L102	A	D	12I
L103	A	D	13H
L253	A	D	21F
L254	A	D	19G
L256	A	D	19E
L257	A	D	20B
L258	A	D	6I
L260	A	D	21A
L301	A	D	8K
L401	A	D	12N
L501	A	D	15I
L502	A	D	17J
L701	A	D	15G
L702	A	D	16F
L703	A	D	7O
L951	A	D	2G
L952	A	D	3G
L953	A	D	3G
L954	A	D	2D
L1001	A	D	21L
L1002	A	D	21L
L1003	A	D	19P
L1081	A	B C	21L
L1101	A	D	10L
L1301	A	D	16M
L1302	A	D	17M
L1303	A	D	17N
L1304	A	D	18N
L1305	A	D	17L
L1306	A	D	17M
L1401	A	D	15O
L1402	A	D	10O
L1403	A	B C	12P
L1951	A	D	18O

RANSISTOR

Q1	B	C	9H
Q9	B	C	5E
Q11	B	C	7F
Q13	B	C	5H
Q14	B	C	5G
Q15	B	C	9F
Q16	B	C	5H
Q18	B	C	9D
Q20	B	C	9F
Q21	B	C	8H
Q22	B	C	8F
Q23	B	C	7E
Q24	B	C	6J
Q101	B	C	14J
Q102	B	C	14I
Q103	B	C	13I
Q104	B	C	12H
Q251	B	C	19E
Q252	B	C	6I
Q253	B	C	6J
Q254	B	C	20G
Q255	B	C	19A
Q256	B	C	18F
Q257	B	C	19E
Q258	B	C	7E
Q259	B	C	5E
Q260	B	C	5E
Q261	B	C	6E
Q262	B	C	6E
Q263	B	C	19G
Q264	B	C	20F
Q265	B	C	20E
Q266	B	C	21E
Q267	B	C	18G
Q268	B	C	21B
Q270	B	C	6E

REF.NO.	LOCATION
Q304	B C 6M
Q305	B C 6L
Q306	B C 6L
Q307	B C 6M
Q308	B C 7M
Q309	B C 7M
Q310	B C 7M
Q311	B C 7N
Q314	B C 6M
Q451	B C 19G
Q452	B C 12P
Q453	B C 12P
Q454	B C 12O
Q455	B C 12O
Q456	B C 12O
Q457	B C 12O
Q503	B C 17J
Q701	B C 13D
Q702	B C 12D
Q703	B C 17D
Q704	B C 4E
Q705	B C 18E
Q708	B C 18G
Q709	B C 15F
Q710	B C 7P
Q712	B C 21B
Q713	B C 18H
Q901	B C 2L
Q902	B C 2L
Q951	B C 1F
Q952	B C 3E
Q953	B C 3E
Q954	B C 2E
Q955	B C 3D
Q956	B C 2G
Q957	B C 3F
Q958	B C 4J
Q959	B C 3E
Q960	B C 11M
Q1002	B C 19N
Q1003	B C 19M
Q1004	B C 20O
Q1005	B C 22O
Q1006	B C 19J
Q1007	B C 21M
Q1008	B C 21M
Q1009	B C 20N
Q1010	B C 22P
Q1011	B C 20O
Q1012	B C 20N
Q1013	B C 20M
Q1014	B C 20N
Q1015	B C 20M
Q1101	B C 10M
Q1301	B C 17N
Q1302	B C 16N
Q1401	B C 10O
Q1402	B C 10O
Q1951	B C 17O
Q1952	B C 17O

RESISTOR

R1	B	C	8F
R2	B	C	7F
R3	B	C	8F
R4	B	C	8F
R5	B	C	9H
R6	B	C	8H
R7	B	C	9H
R8	B	C	15I
R9	B	C	10H
R10	B	C	6G
R11	B	C	5F
R12	B	C	7F
R13	B	C	7F
R14	B	C	7F
R15	B	C	7F
R16	B	C	7F
R17	B	C	9J
R31	B	C	7I
R34	B	C	10F
R35	B	C	6H
R36	B	C	9F
R37	B	C	8E
R38	B	C	9I
R40	B	C	6F
R41	B	C	6G
R42	B	C	8D
R43	B	C	6H
R44	B	C	8D
R45	B	C	9G
R46	B	C	8I
R47	B	C	8H
R48	B	C	9D
R49	B	C	14I
R50	B	C	14J
R51	B	C	14I
R52	B	C	14J
R53	B	C	16I
R54	B	C	8F
R55	B	C	8F
R56	B	C	7F
R57	B	C	5I
R58	B	C	5H
R59	B	C	5H
R60	B	C	5E
R61	B	C	8H
R62	B	C	7D
R63	B	C	7D
R64	B	C	5D
R65	B	C	7D
R66	B	C	9E
R67	B	C	5I
R68	B	C	5I
R101	B	C	13J
R102	B	C	13J
R103	B	C	14J
R104	B	C	13J
R105	B	C	13K
R106	B	C	14K
R107	B	C	13I
R108	B	C	14J
R109	B	C	12H
R110	B	C	13H
R111	B	C	13J
R251	B	C	18F
R252	B	C	18F
R253	B	C	19F
R254	B	C	18F
R255	B	C	19E
R256	B	C	20E
R257	B	C	20E
R258	B	C	20F
R259	B	C	20F
R260	B	C	19G
R261	B	C	20G
R262	B	C	19G
R263	B	C	19G
R264	B	C	18G
R265	B	C	18H
R266	B	C	18G
R267	B	C	21E

REF.NO.	LOCATION
R268	B C 21E
R269	B C 19G
R270	B C 8J
R271	B C 8J
R272	B C 6I
R273	B C 21F
R274	B C 20B
R275	B C 21B
R276	B C 20A
R277	B C 19B
R278	B C 6E
R279	B C 21B
R280	B C 7E
R281	B C 7E
R282	B C 8E
R283	B C 7E
R284	B C 8E
R285	B C 6E
R286	B C 5F
R287	B C 6F
R288	B C 6F
R289	B C 6E
R290	B C 18G
R291	B C 18E
R292	B C 20F
R293	B C 20G
R294	B C 6F
R295	B C 6I
R301	B C 13O
R302	B C 13P
R303	B C 7J
R306	B C 7J
R307	B C 7I
R308	B C 7J
R309	B C 7J
R310	B C 7J
R311	B C 8J
R312	B C 8J
R313	B C 8J
R314	B C 8J
R315	B C 8J
R316	B C 6M
R317	B C 6M
R318	B C 6M
R319	B C 6N
R320	B C 6N
R321	B C 6N
R322	B C 7N
R323	B C 7M
R324	B C 7M
R325	B C 7M
R326	B C 7L
R327	B C 7L
R328	B C 7M
R329	B C 7N
R330	B C 8N
R331	B C 7N
R332	B C 7N
R339	B C 7M
R340	B C 6I
R341	B C 5I
R342	B C 6M
R344	B C 7J
R401	B C 12N
R402	B C 13M
R403	B C 12N
R404	B C 12M
R405	B C 12M
R406	B C 12M
R407	B C 13L
R408	B C 13M
R409	B C 13M
R410	B C 13M
R411	B C 14L
R412	B C 14L
R413	B C 14M
R414	B C 15M
R415	B C 15M
R416	B C 15M
R417	B C 15N
R418	B C 15N
R419	B C 15N
R420	B C 15O
R421	B C 15O
R422	B C 15O
R423	B C 14O
R424	B C 14O
R425	B C 14O
R426	B C 14O
R427	B C 14O
R428	B C 14O
R429	B C 14O
R430	B C 14O
R431	B C 13P
R432	B C 12N
R433	B C 13N
R434	B C 13E
R435	B C 12E
R436	B C 12E
R437	B C 12E
R438	B C 12P
R440	B C 12O
R441	B C 11N
R451	B C 11N
R452	B C 10N
R453	B C 12O
R454	B C 12O
R455	B C 13O
R456	B C 13N
R482	B C 13N
R501	B C 16J
R502	B C 16J
R503	B C 16J
R504	B C 16J
R505	B C 15K
R506	B C 15K
R507	B C 16J
R508	B C 17J
R516	B C 17J
R517	B C 16J
R518	B C 17J
R519	B C 17J
R520	B C 16J
R521	B C 18I
R522	B C 18I
R523	B C 17I
R524	B C 14D
R525	B C 16J
R701	B C 14D
R702	B C 14D
R703	B C 14E
R704	B C 14E
R705	B C 12B
R706	B C 12B
R707	B C 12B
R708	B C 12B
R709	B C 12B
R710	B C 15C
R711	B C 13C
R712	B C 12C
R713	B C 15C
R714	B C 15C

REF.NO.	LOCATION
R715	B C 15C
R716	B C 15C
R717	B C 15C
R718	B C 15C
R719	B C 16C
R720	B C 16C
R721	B C 15C
R722	B C 12C
R723	B C 18E
R724	B C 17F
R725	B C 17C
R726	B C 17C
R727	B C 17E
R728	B C 17C
R729	B C 15C
R730	B C 17F
R731	B C 17F
R732	B C 17O
R733	B C 17F
R734	B C 18C
R735	B C 16D
R736	B C 17E
R737	B C 14D
R738	B C 17F
R739	B C 16F
R740	B C 16F
R741	B C 16F
R742	B C 16F
R743	B C 17F
R744	B C 16G
R745	B C 14F
R746	B C 14F
R747	B C 14F
R748	B C 14F
R749	B C 14F
R750	B C 12C
R751	B C 16C
R752	B C 17G
R753	B C 16C
R754	B C 14F
R755	B C 14F
R756	B C 14F
R757	B C 14D
R758	B C 17D
R759	B C 17D
R760	B C 17D
R761	B C 17C
R762	B C 17C
R763	B C 17C
R764	B C 22E
R765	B C 13C
R766	B C 11C
R767	B C 14E
R768	B C 1C
R769	A B C 12D
R770	B C 13D
R771	B C 13C
R772	B C 11C
R773	B C 11C
R774	B C 14D
R775	B C 14C
R776	B C 14C
R777	B C 14C
R778	B C 3A
R779	B C 2A
R780	B C 7B
R781	B C 7B
R782	B C 7B
R783	B C 4D
R784	B C 16B
R785	B C 11E
R786	A B C 8C
R787	B C 11D
R788	B C 18D
R789	B C 4E
R790	B C 12C
R791	B C 12C
R792	B C 17E
R793	B C 17E
R794	B C 17E
R795	B C 17E
R796	B C 15G
R797	B C 15G
R798	B C 16G
R799	B C 17G
R800	B C 2B
R801	B C 2B
R802	B C 3B
R803	B C 3B
R804	B C 3B
R805	B C 21E
R806	B C 21E
R807	B C 17C
R808	B C 12C
R809	B C 16G
R810	B C 17G
R811	B C 17D
R812	B C 16G
R813	B C 2C
R814	B C 7K
R815	B C 1C
R816	B C 13B
R817	B C 12C
R818	B C 12C
R819	B C 13B
R820	B C 14G
R821	B C 22B
R822	B C 22C
R823	B C 16C
R824	B C 11D
R825	B C 11E
R826	B C 18C
R827	B C 6P
R828	B C 18C
R829	B C 17F
R830	B C 1M
R901	B C 2L
R902	B C 2M
R903	B C 2K
R904	B C 2K
R905	B C 2L
R906	B C 2K
R907	B C 2L
R908	B C 4K
R909	B C 3L
R911	B C 3M
R912	B C 3L
R951	B C 4K
R952	B C 5I
R953	B C 4I
R954	B C 4J
R955	B C 4F
R957	B C 1G
R958	B C 2E
R959	B C 2D
R960	B C 2E
R961	B C 2D
R962	B C 1E
R963	B C 3E
R964	B C 2D
R965	B C 2E

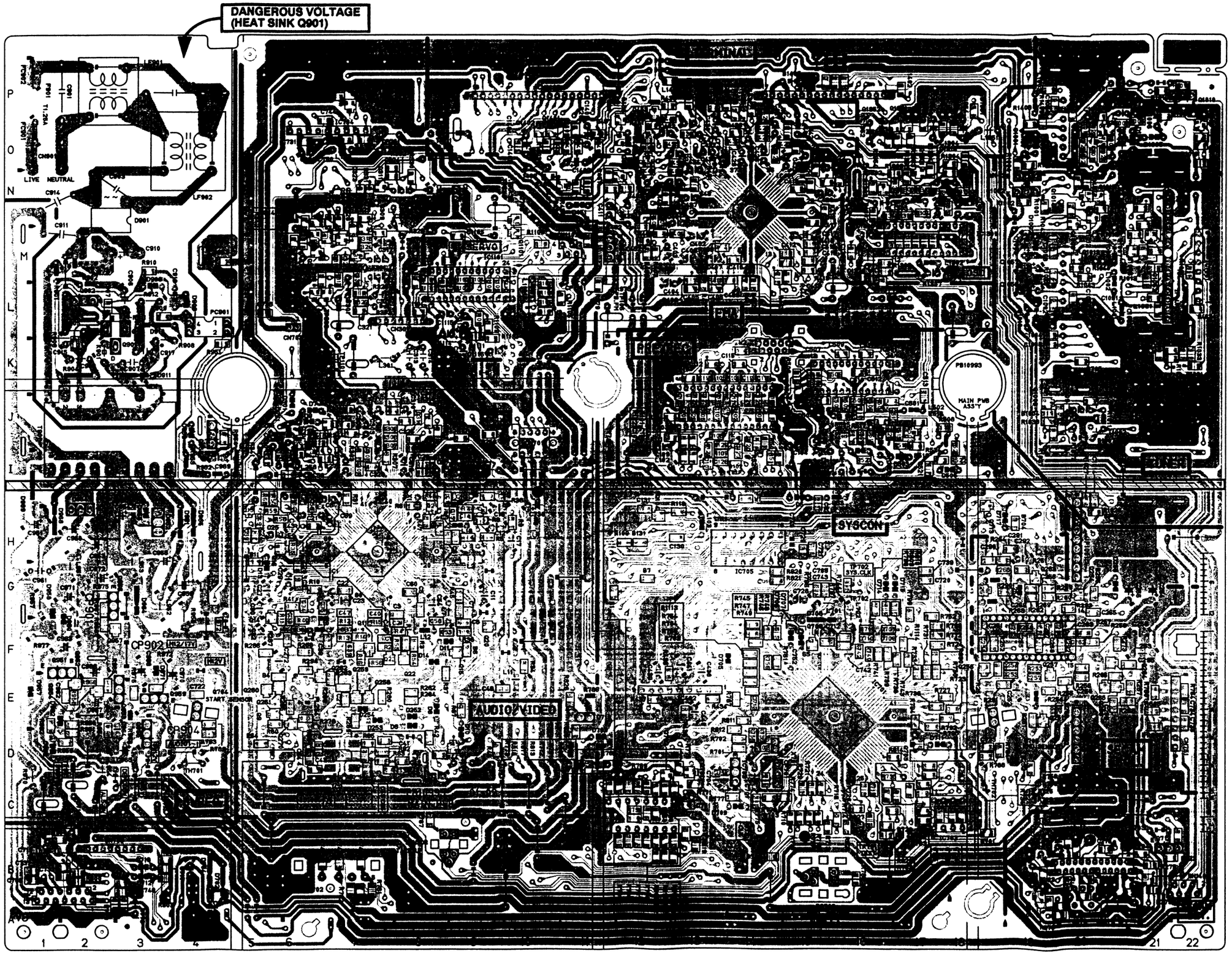
TEST POINT

TP106	A	D	11L
TP111	A	D	9O
TP254	A	D	20B
TP255	A	D	18K
TP333	A	D	7L
TP334	A	D	9N
TP553	A	D	15L
TP701	A	D	17D
TP702	A	D	16G
TP901	A	D	2C
TP1101	A	D	7K
TPGND	A	D	1C

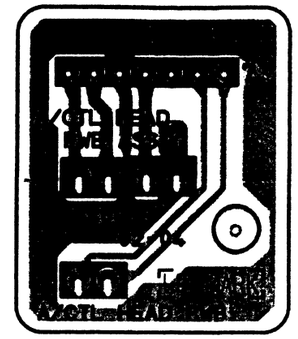
OTHERS

CF701	A	D	14D
F901	A	D	1O
FL254	A	D	6E
IF-UNIT	A	D	21L
JP1001	A	D	20G
JP1002	A	D	20D
K901	A	D	2K
LF901	A	D	2P
LF902	A	D	4O
PC901	A	D	5L
PS701	A	D	9B
PS702	A	D	15B
T301	A	D	7M
T302	A	D	8N
T901	A	D	1K
T1001	A	D	21P
T1002	A	D	20J
TH701	A	D	1D
TH702	A	D	18C
TU1001	A	D	20P
X1	A	D	8I
X701	A	D	14D

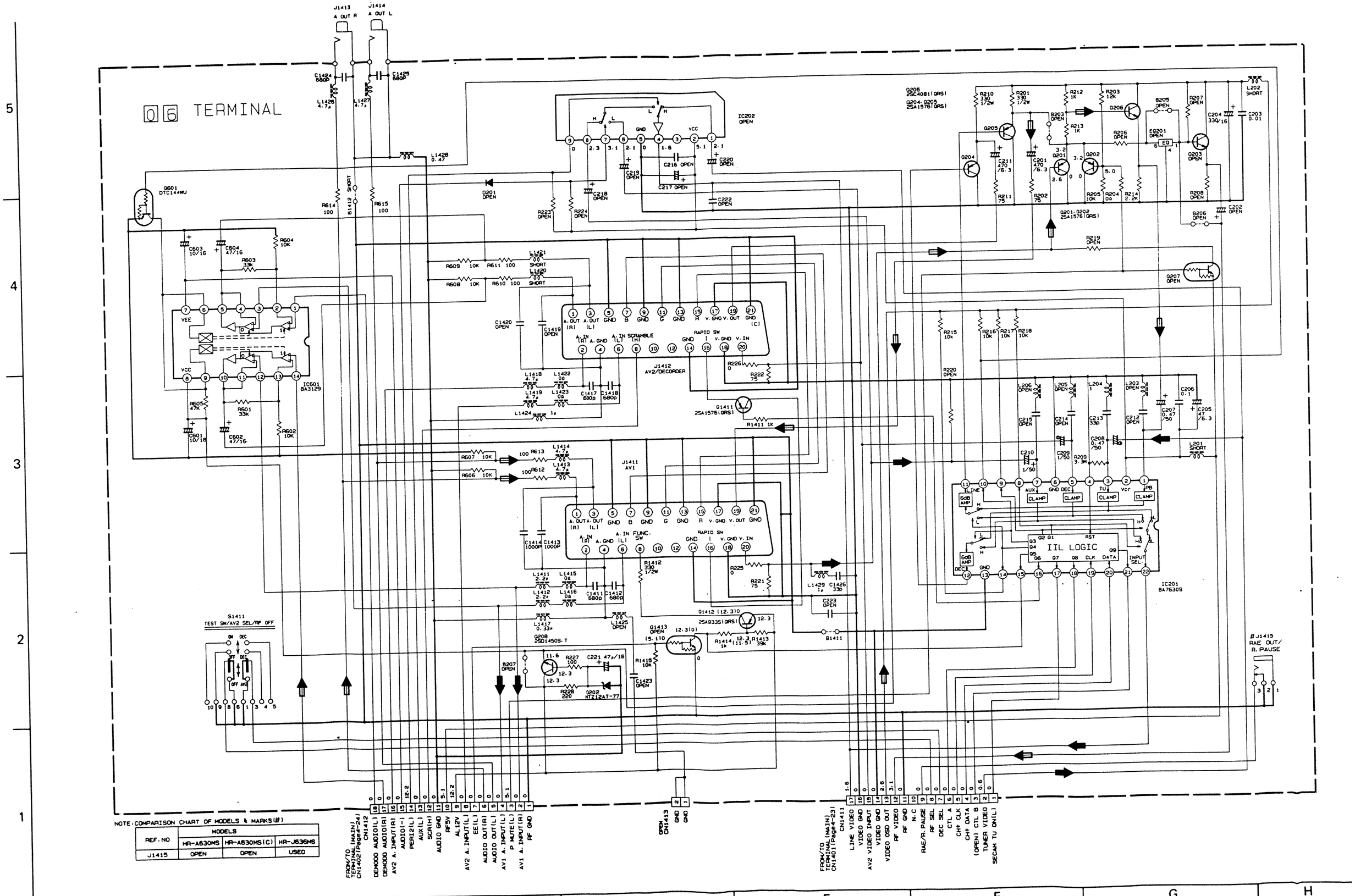
4.14 MAIN AND A/C HEAD CIRCUIT BOARDS



-A/C HEAD-



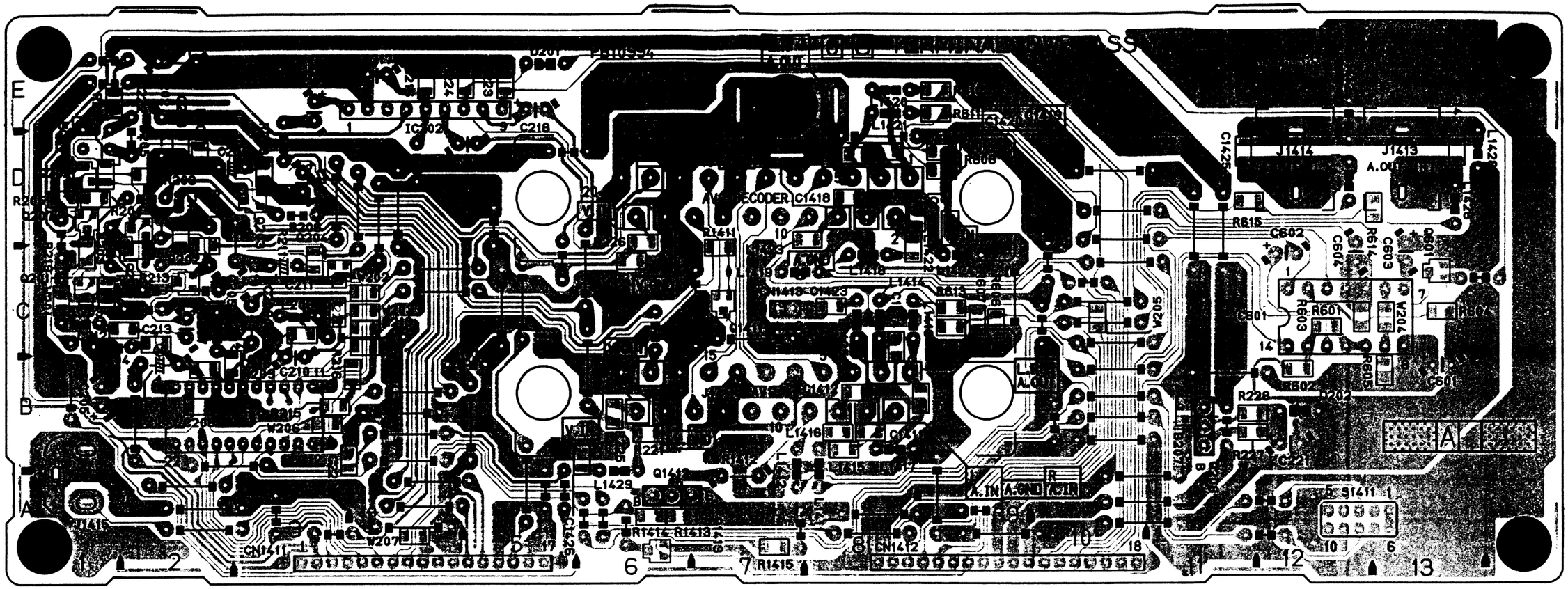
4.15 TERMINAL SCHEMATIC DIAGRAM



NOTE: COMPARISON CHART OF MODELS & MARKS (#)

REF. NO	MODELS		
	HR-A630MS	HR-A630MS(C)	HR-J636MS
J1415	OPEN	OPEN	USED

4.16 TERMINAL CIRCUIT BOARD



COMPONENT PARTS LOCATION GUIDE <TERMINAL PWB>

REF.No.	LOCATION		
CAPACITOR			
C201	A	D	2D
C202	A	D	3D
C203	B	C	2D
C204	A	D	2D
C205	A	D	1B
C206	B	C	2B
C207	A	D	2C
C208	A	D	2B
C209	A	D	3C
C210	A	D	3B
C211	A	D	3C
C212	B	C	2C
C213	B	C	2C
C214	B	C	2B
C215	B	C	3C
C216	B	C	4E
C217	A	D	4E
C218	A	D	5E
C219	A	D	4D
C220	A	D	3E
C221	A	D	12B
C222	B	C	1E
C223	B	C	3B
C601	A	D	13B
C602	A	D	12C
C603	A	D	13C
C604	A	D	12C
C1411	B	C	8B
C1412	B	C	8B
C1413	B	C	9B
C1414	B	C	8C
C1417	B	C	8D
C1418	B	C	8D

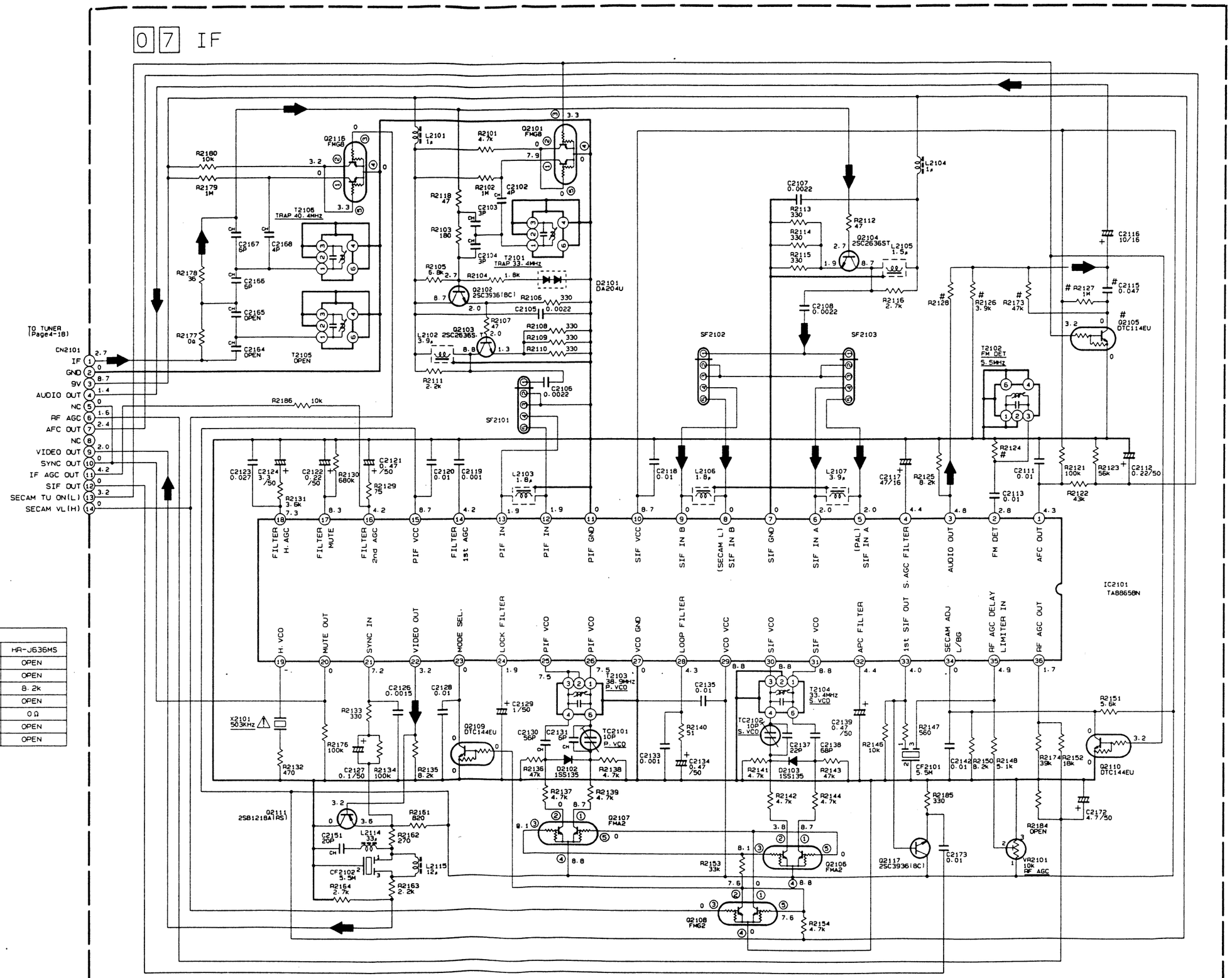
REF.No.	LOCATION		
C1419	B	C	8D
C1420	B	C	8D
C1423	B	C	8C
C1424	B	C	13D
C1425	B	C	11D
C1426	B	C	6B
CONNECTOR			
CN1411	A	D	3A
CN1412	A	D	8A
CN1413	A	D	7C
DIODE			
D201	A	D	5E
D202	A	D	12B
IC			
IC201	A	D	2B
IC202	A	D	3E
IC601	A	D	12C
COIL			
L201	A	D	2E
L202	A	D	2E
L203	A	D	1C
L204	A	D	1C
L205	A	D	2C
L206	A	D	3C
L1411	A	D	8B
L1412	A	D	7B
L1413	A	D	8C
L1414	A	D	8C
L1415	B	C	8B
L1416	B	C	8B
L1417	A	D	8B
L1418	A	D	8C

REF.No.	LOCATION		
L1419	A	D	7C
L1420	A	D	8E
L1421	A	D	8E
L1422	B	C	8C
L1423	B	C	8C
L1424	A	D	9C
L1425	A	D	8C
L1426	A	D	13D
L1427	A	D	12D
L1428	A	D	13D
L1429	A	D	6A
TRANSISTOR			
Q201	B	C	1C
Q202	B	C	1D
Q203	B	C	3D
Q204	B	C	3C
Q205	B	C	2C
Q206	B	C	2D
Q207	B	C	1D
Q208	A	D	11B
Q601	B	C	13C
Q1411	B	C	7C
Q1412	A	D	6A
Q1413	B	C	6A
RESISTOR			
R201	A	D	2C
R202	B	C	2C
R203	B	C	2D
R204	B	C	1D
R205	B	C	1D
R206	B	C	1D
R207	B	C	2D
R208	B	C	3D
R209	B	C	2B

REF.No.	LOCATION		
R210	A	D	3C
R211	B	C	3C
R212	B	C	2D
R213	B	C	2C
R214	B	C	1C
R215	B	C	3B
R216	B	C	4B
R217	B	C	4C
R218	B	C	4C
R219	B	C	1C
R220	B	C	3C
R221	B	C	6B
R222	B	C	6C
R223	B	C	5E
R224	B	C	5E
R225	B	C	6B
R226	B	C	6C
R227	B	C	11B
R228	B	C	11B
R601	B	C	12C
R602	B	C	12B
R603	B	C	12C
R604	B	C	13C
R605	B	C	13B
R606	B	C	9C
R607	B	C	9C
R608	B	C	9D
R609	B	C	9D
R610	B	C	9E
R611	B	C	9E
R612	B	C	9C
R613	B	C	9C
R614	B	C	13D
R615	B	C	11D
R1411	B	C	7C

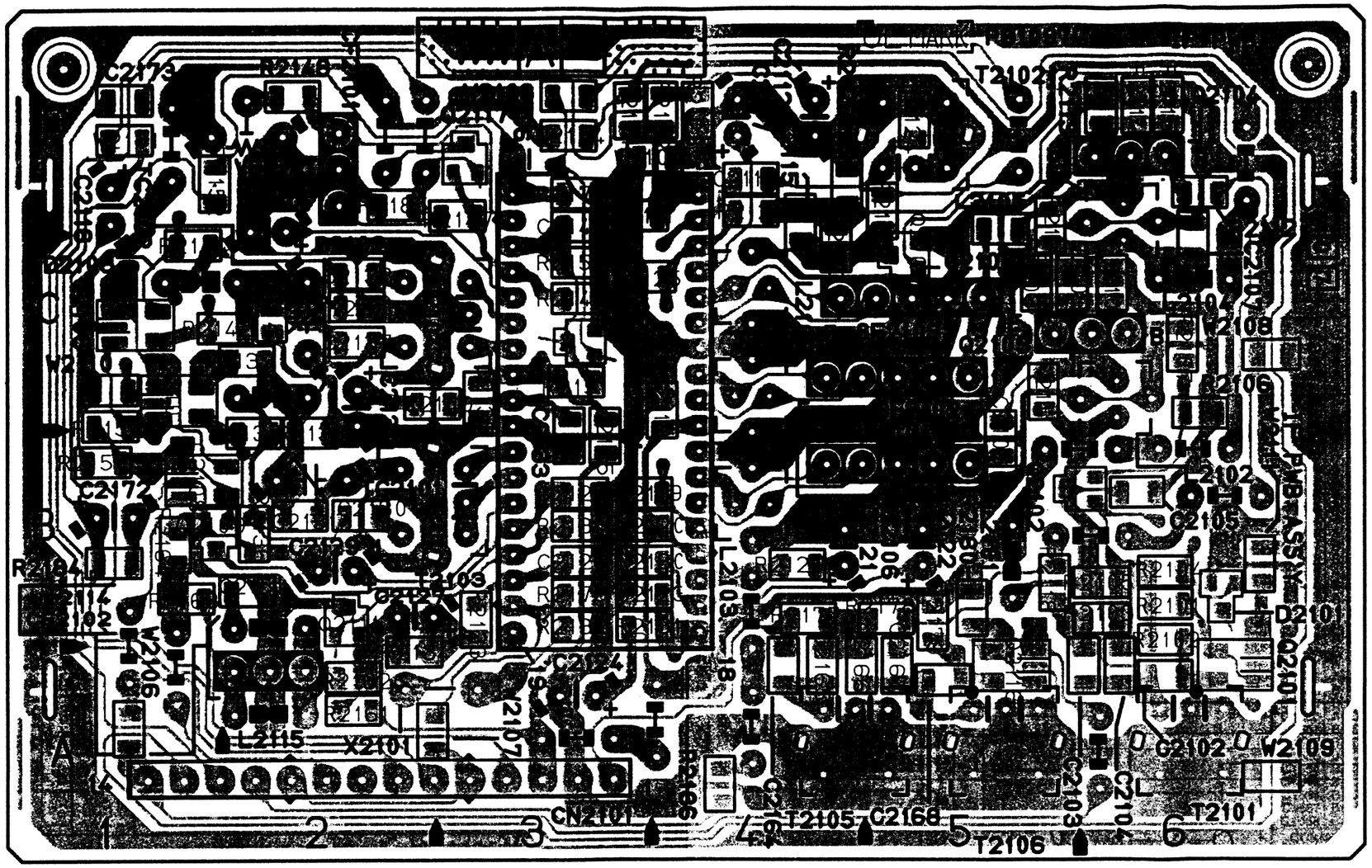
REF.No.	LOCATION		
R1412	A	D	7A
R1413	B	C	6A
R1414	B	C	6A
R1415	B	C	7A
OTHERS			
EQ201	A	D	1D
J1411	A	D	7B
J1412	A	D	7D
J1413	A	D	13D
J1414	A	D	12D
J1415	A	D	1A
S1411	A	D	12A

4.17 IF SCHEMATIC DIAGRAM



NOTE : COMPARISON CHART OF MODELS & MARKS(#)

REF. NO	MODELS		
	HA-A630MS	HA-A630MS(C)	HA-J636MS
Q2105	USED	OPEN	OPEN
R2126	USED	OPEN	OPEN
R2124	5.6k	8.2k	8.2k
R2127	USED	OPEN	OPEN
R2128	1.5k	0Ω	0Ω
R2173	USES	OPEN	OPEN
C2115	USED	OPEN	OPEN



COMPONENT PARTS LOCATION GUIDE <IF PWB>

REF.No.	LOCATION		
CAPACITOR			
C2102	B	C	6A
C2103	B	C	6A
C2104	B	C	6A
C2105	B	C	6B
C2106	B	C	5B
C2107	B	C	6C
C2108	B	C	5C
C2111	B	C	3C
C2112	A	D	4D
C2113	B	C	4D
C2115	B	C	4C
C2116	A	D	1D
C2117	A	D	4D
C2118	B	C	4C
C2119	B	C	3B
C2120	B	C	3B
C2121	A	D	4B
C2122	A	D	5B
C2123	B	C	3B
C2124	A	D	3A
C2126	B	C	3B
C2127	A	D	2B

REF.No.	LOCATION		
C2128	B	C	3B
C2129	A	D	2B
C2130	B	C	2B
C2131	B	C	2B
C2133	B	C	3B
C2134	A	D	2C
C2135	B	C	3C
C2137	B	C	2C
C2138	B	C	2C
C2139	A	D	2C
C2142	B	C	3C
C2151	B	C	2B
C2164	B	C	4A
C2165	B	C	4A
C2166	B	C	4A
C2167	B	C	5A
C2168	B	C	5A
C2172	A	D	1B
C2173	B	C	1D
CONNECTOR			
CN2101	A	D	3A

REF.No.	LOCATION		
DIODE			
D2101	B	C	6B
D2102	A	D	2C
D2103	A	D	1C
IC			
IC2101	A	D	4D
COIL			
L2101	A	D	5B
L2102	A	D	6C
L2103	A	D	4B
L2104	A	D	6C
L2105	A	D	6C
L2106	A	D	4C
L2107	A	D	4C
L2114	A	D	2B
L2115	A	D	2A
TRANSISTOR			
Q2101	B	C	6A
Q2102	B	C	6B
Q2103	A	D	5C
Q2104	A	D	6D

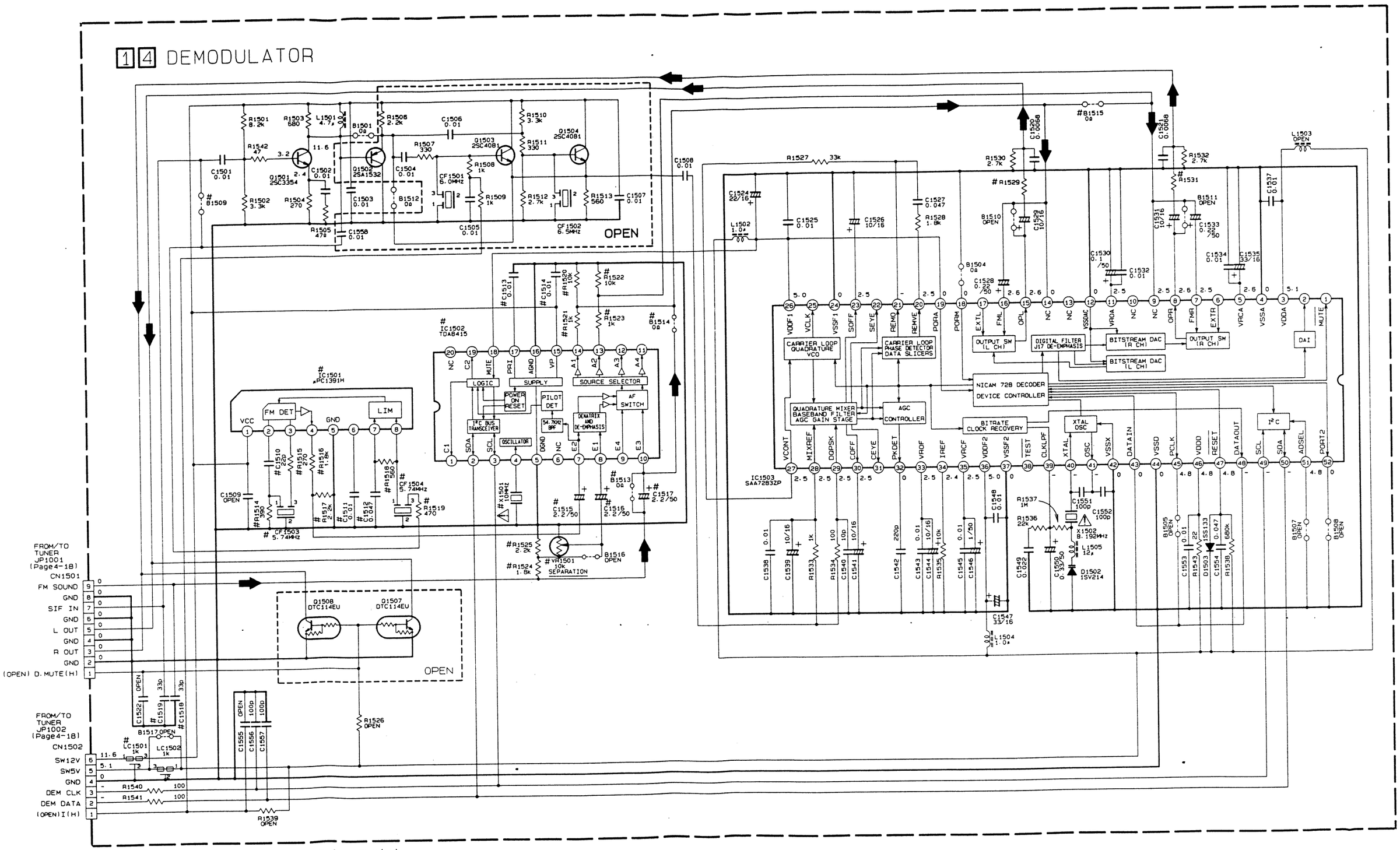
REF.No.	LOCATION		
Q2105	B	C	5C
Q2106	B	C	1C
Q2107	B	C	1C
Q2108	B	C	1B
Q2109	B	C	1B
Q2110	B	C	3C
Q2111	B	C	2B
Q2116	B	C	5A
Q2117	B	C	3D
RESISTOR			
R2101	B	C	6B
R2102	B	C	6B
R2103	B	C	6B
R2104	B	C	6B
R2105	B	C	6B
R2106	B	C	6C
R2107	B	C	6C
R2108	B	C	5C
R2109	B	C	5C
R2110	B	C	6C
R2111	B	C	5C
R2112	B	C	6D

REF.No.	LOCATION		
R2113	B	C	6D
R2114	B	C	6D
R2115	B	C	6D
R2116	B	C	5C
R2118	B	C	5B
R2121	B	C	3D
R2122	B	C	4D
R2123	B	C	4D
R2124	B	C	5D
R2125	B	C	3C
R2126	B	C	4D
R2127	B	C	5D
R2128	B	C	4D
R2129	B	C	4B
R2130	B	C	3B
R2131	B	C	3B
R2132	B	C	3B
R2133	B	C	3B
R2134	B	C	2A
R2135	B	C	3B
R2136	B	C	2B
R2137	B	C	2B
R2138	B	C	2B

REF.No.	LOCATION		
R2139	B	C	2C
R2140	B	C	2C
R2141	B	C	2C
R2142	B	C	2C
R2143	B	C	2C
R2144	B	C	1C
R2146	B	C	3C
R2147	B	C	3C
R2148	B	C	2D
R2150	B	C	3C
R2151	B	C	3C
R2152	B	C	1D
R2153	B	C	1C
R2154	B	C	1B
R2161	B	C	2A
R2162	B	C	2A
R2163	B	C	1B
R2164	B	C	1B
R2173	B	C	4C
R2174	B	C	3D
R2176	B	C	3B
R2177	B	C	4B
R2178	B	C	5B

REF.No.	LOCATION		
R2179	B	C	5B
R2180	B	C	5B
R2184	B	C	1B
R2185	B	C	2D
R2186	B	C	4A
OTHERS			
CF2101	A	D	2D
CF2102	A	D	2A
SF2101	A	D	5B
SF2102	A	D	5C
SF2103	A	D	5C
T2101	A	D	6A
T2102	A	D	5D
T2103	A	D	3B
T2104	A	D	3C
T2105	A	D	4A
T2106	A	D	5A
TC2101	A	D	2B
TC2102	A	D	2C
VR2101	A	D	2D
X2101	A	D	3A

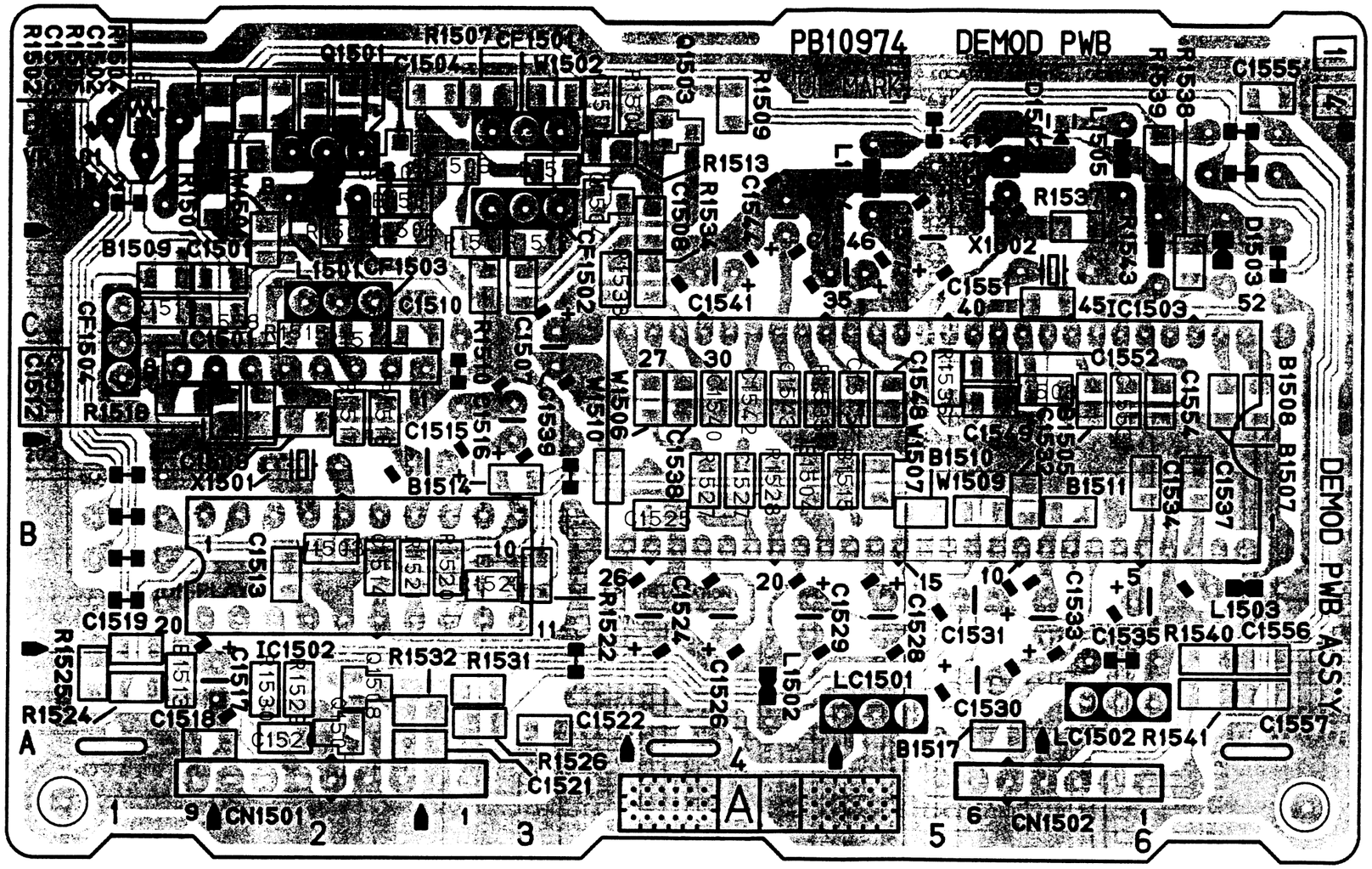
4.19 DEMODULATOR SCHEMATIC DIAGRAM



NOTE : COMPARISON CHART OF MODELS & MARKS(#)

REF. NO.		IC1501	IC1502	R1514-R1525	R1529	R1531	C1510-C1517	C1518	C1519	CF1503	CF1504	VR1501	LC1501	X1501	B1509	B1513-B1515
MODEL	HR-A630MS	OPEN	OPEN	OPEN	1.5k	1.5k	OPEN	USED	USED	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	USED
	HR-A630MS(C)	USED	USED	USED	2.2k	2.2k	USED	OPEN	OPEN	USED	USED	USED	USED	USED	0Ω	OPEN
	HR-J636MS	USED	USED	USED	2.2k	2.2k	USED	OPEN	OPEN	USED	USED	USED	USED	USED	0Ω	OPEN

4.20 DEMODULATOR CIRCUIT BOARD

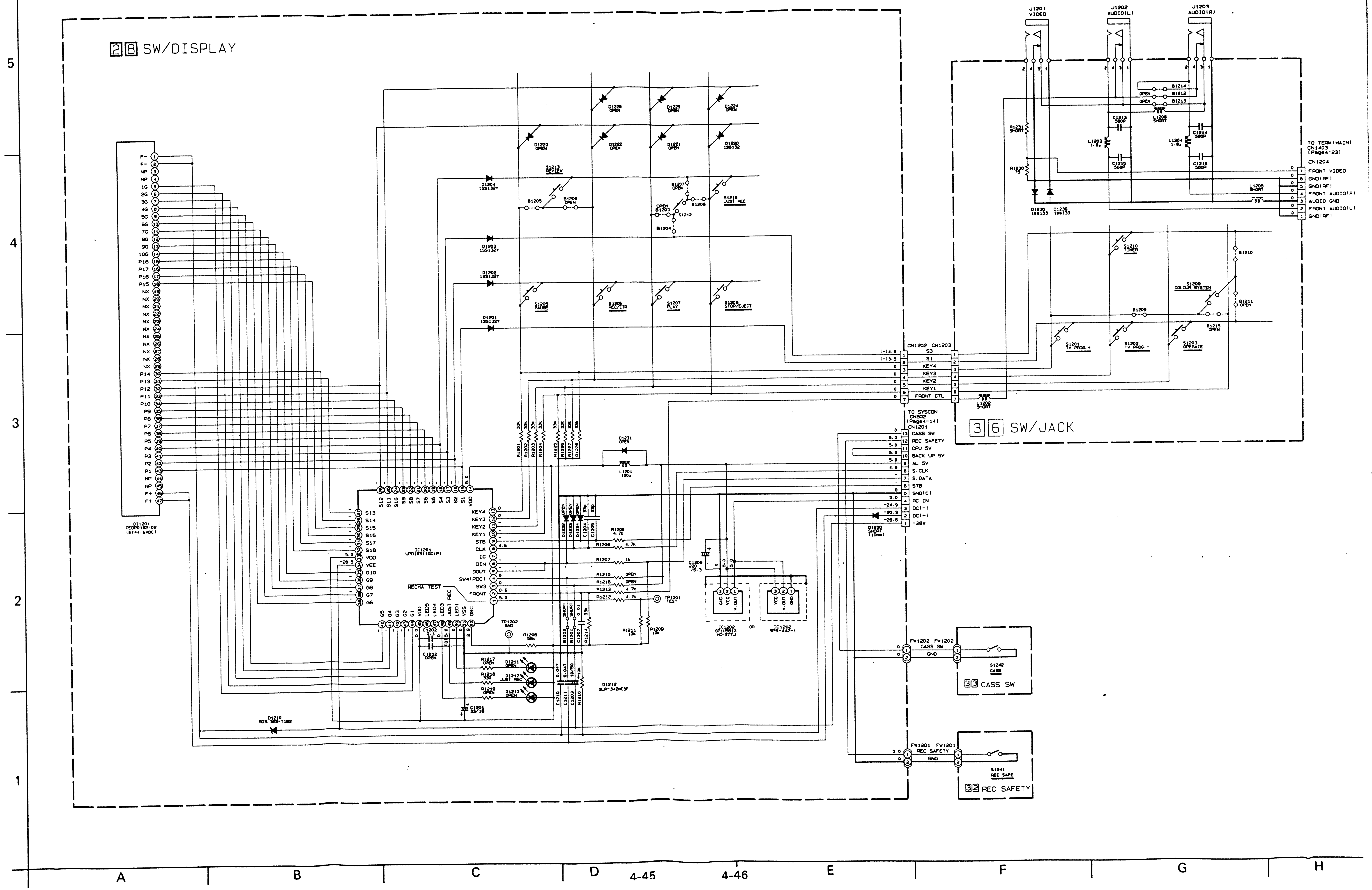


COMPONENT PARTS LOCATION GUIDE
<DEMOD PWB>

REF.NO.	LOCATION		
CAPACITOR			
C1501	B	C	2C
C1502	B	C	2D
C1503	B	C	2D
C1504	B	C	3D
C1505	B	C	3D
C1506	B	C	3D
C1507	B	C	3C
C1508	B	C	4D
C1509	B	C	2C
C1510	B	C	2C
C1511	B	C	2C
C1512	B	C	2C
C1513	B	C	2B
C1514	B	C	2B
C1515	A	D	3B
C1516	A	D	3C
C1517	A	D	2A
C1518	B	C	1A
C1519	B	C	1B
C1520	B	C	2A
C1521	B	C	2A
C1522	B	C	3A
C1524	A	D	4B
C1525	B	C	4B
C1526	A	D	4B
C1527	B	C	4B
C1528	A	D	5B
C1529	A	D	4B
C1530	A	D	5A
C1531	A	D	5B
C1532	B	C	5B
C1533	A	D	6B
C1534	B	C	6B
C1535	A	D	6B
C1537	B	C	6B
C1538	B	C	4C
C1539	A	D	3C
C1540	B	C	4C
C1541	A	D	4C
C1542	B	C	4C
C1543	B	C	4C
C1544	A	D	4D
C1545	B	C	5C
C1546	A	D	5C
C1547	A	D	5C
C1548	B	C	5C
C1549	B	C	5C
C1550	A	D	5D
C1551	B	C	6C
C1552	B	C	5C
C1553	B	C	6C
C1554	B	C	6C
C1555	B	C	7D
C1556	B	C	7A
C1557	B	C	7A
C1558	B	C	2C
CONNECTOR			
CN1501	A	D	3A
CN1502	A	D	6A
DIODE			
D1502	B	C	6D
D1503	A	D	6C
IC			
IC1501	A	D	3C
IC1502	A	D	1B
IC1503	A	D	6B
COIL			
L1501	A	D	2D
L1502	A	D	4A
L1503	A	D	7B
L1504	A	D	5D
TRANSISTOR			
Q1501	A	D	2D
Q1502	B	C	2D
Q1503	B	C	4D
Q1504	B	C	3D
Q1507	B	C	2A
Q1508	B	C	2A
RESISTOR			
R1501	B	C	1D
R1502	B	C	1D
R1503	B	C	2D
R1504	B	C	2D
R1505	B	C	2D
R1506	B	C	2D
R1507	B	C	3D
R1508	B	C	4D
R1509	B	C	4D
R1510	B	C	3C
R1511	B	C	3C
R1512	B	C	3C
R1513	B	C	3D
R1514	B	C	2C
R1515	B	C	2C
R1516	B	C	2C
R1517	B	C	2C
R1518	B	C	1C
R1519	B	C	1C
R1520	B	C	3B
R1521	B	C	2B
R1522	B	C	3B
R1523	B	C	3B
R1524	B	C	1A
R1525	B	C	1A
R1526	B	C	3A
R1527	B	C	4B
R1528	B	C	4B
R1529	B	C	2A
R1530	B	C	2A
R1531	B	C	3A
R1532	B	C	2A
R1533	B	C	3C
R1534	B	C	4C
R1535	B	C	4C
R1536	B	C	5C
R1537	B	C	6D
R1538	B	C	6C
R1539	B	C	6D
R1540	B	C	6A
R1541	B	C	6A
R1542	B	C	2D
R1543	A	D	6C
OTHERS			
CF1501	A	D	3D
CF1502	A	D	3D
CF1503	A	D	2C
CF1504	A	D	1C
LC1501	A	D	5A
LC1502	A	D	6A
VR1501	A	D	1D
X1501	A	D	2B
X1502	A	D	6C

4.21 SW/DISPLAY, SW/JACK, REC SAFETY AND CASSETTE SW SCHEMATIC DIAGRAM

-for HR-J636MS-

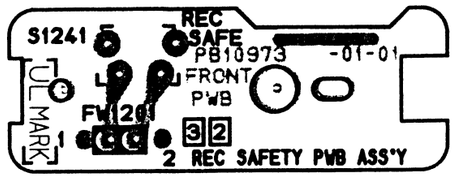


28 SW/DISPLAY
36 SW/JACK
33 CASS SW
32 REC SAFETY
J1201 VIDEO
J1202 AUDIO(L)
J1203 AUDIO(R)
TO TERM(MAIN) CN1403 (Page4-23)
CN1204
FRONT VIDEO
GND(RF)
GND(RF)
FRONT AUDIO(R)
AUDIO GND
FRONT AUDIO(L)
GND(RF)
CN1202 CN1203
S3
S1
KEY4
KEY3
KEY2
KEY1
FRONT CTL
TO SYSCON CN802 (Page4-14) CN1201
CASS SW
REC SAFETY
CPU 5V
BACK UP 5V
AL 5V
S.CLK
S.DATA
STB
GND(C)
RC IN
DC(-)
DC(+)
-28V
IC1201 UPD16311GC(P)
DI1201 PEDP0192-02 (Ef=4.6VDC)
S1205 PAUSE
S1206 REC/ITR
S1207 PLAY
S1208 STOP/EJECT
S1213 REVIEW
S1216 JUST REC
S1210 TIMER
S1209 COLOUR SYSTEM
S1201 TV PROG.+
S1202 TV PROG.-
S1203 OPERATE
S1242 CASS
S1241 REC SAFE
FW1202 FW1202 CASS SW GND
FW1201 FW1201 REC SAFETY GND
IC1202 GP1U581X HC-377J
OR
IC1202 SPS-442-1
D1212 SLR-342MC3F
D1210 RD3.3ES-T1B2
TP1201 TEST
TP1202 GND
MECHA TEST

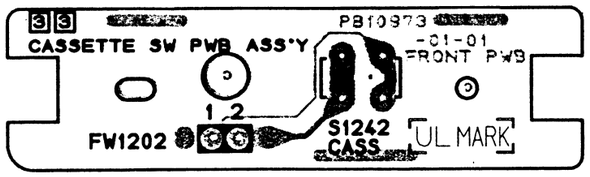
4.22 SW/DISPLAY, SW/JACK, REC SAFETY AND CASSETTE SW CIRCUIT BOARDS

-for HR-J636MS-

-REC SAFETY-



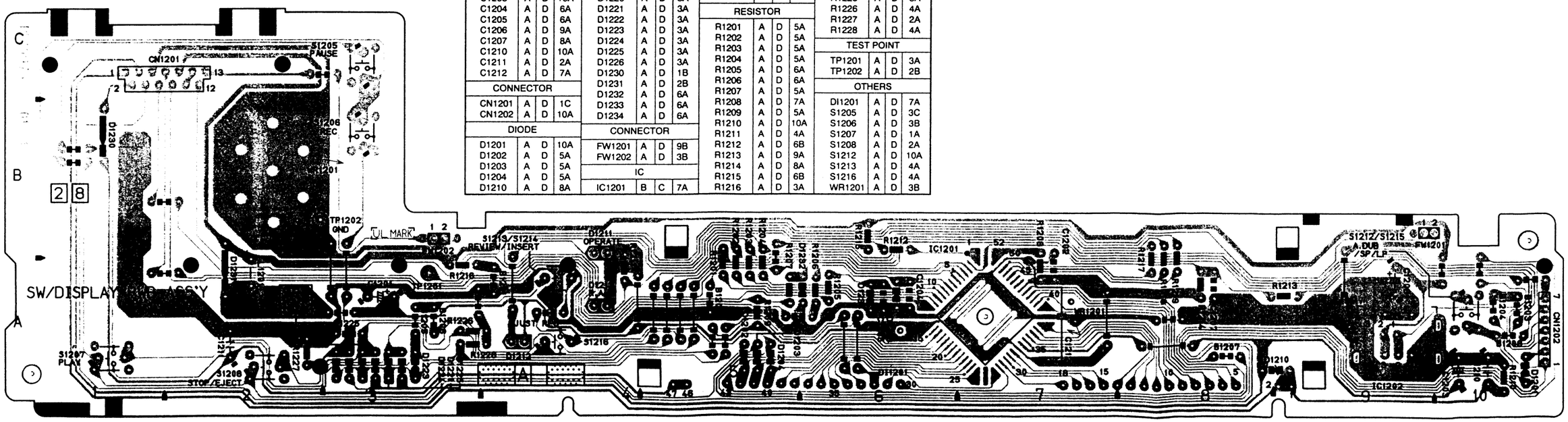
-CASSETTE SW-



-SW/DISPLAY-

COMPONENT PARTS LOCATION GUIDE <SW/DISPLAY PWB>

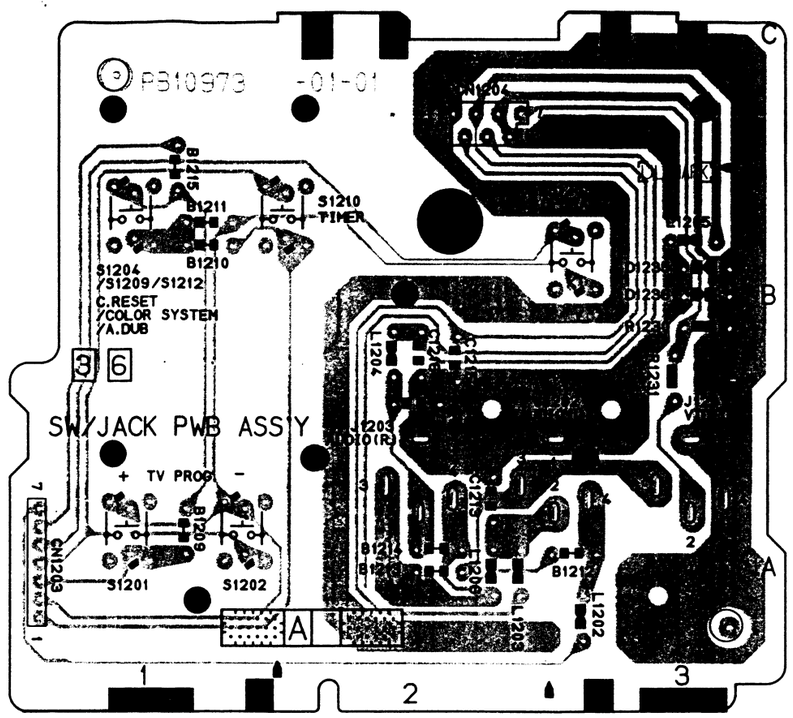
REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION		
CAPACITOR				D1211	A	D	4B	IC1202	A	D	9A	R1217	A	D	8A
C1201	A	D	3A	D1212	A	D	4A	COIL				R1218	A	D	8A
C1202	A	D	7A	D1213	A	D	4A	L1201	A	D	2A	R1219	A	D	8A
C1203	A	D	10A	D1220	A	D	3A	RESISTOR				R1225	A	D	3A
C1204	A	D	6A	D1221	A	D	3A	R1201	A	D	5A	R1226	A	D	4A
C1205	A	D	6A	D1222	A	D	3A	R1202	A	D	5A	R1227	A	D	2A
C1206	A	D	9A	D1223	A	D	3A	R1203	A	D	5A	R1228	A	D	4A
C1207	A	D	8A	D1224	A	D	3A	R1204	A	D	5A	TEST POINT			
C1210	A	D	10A	D1225	A	D	3A	R1205	A	D	6A	TP1201	A	D	3A
C1211	A	D	2A	D1226	A	D	3A	R1206	A	D	6A	TP1202	A	D	2B
C1212	A	D	7A	D1230	A	D	1B	R1207	A	D	5A	OTHERS			
CONNECTOR				D1231	A	D	2B	R1208	A	D	7A	DI1201	A	D	7A
CN1201	A	D	1C	D1232	A	D	6A	R1209	A	D	5A	S1205	A	D	3C
CN1202	A	D	10A	D1233	A	D	6A	R1210	A	D	10A	S1206	A	D	3B
DIODE				D1234	A	D	6A	R1211	A	D	4A	S1207	A	D	1A
D1201	A	D	10A	CONNECTOR				R1212	A	D	6B	S1208	A	D	2A
D1202	A	D	5A	FW1201	A	D	9B	R1213	A	D	9A	S1212	A	D	10A
D1203	A	D	5A	FW1202	A	D	3B	R1214	A	D	8A	S1213	A	D	4A
D1204	A	D	5A	IC				R1215	A	D	6B	S1216	A	D	4A
D1210	A	D	8A	IC1201	B	C	7A	R1216	A	D	3A	WR1201	A	D	3B



-SW/JACK-

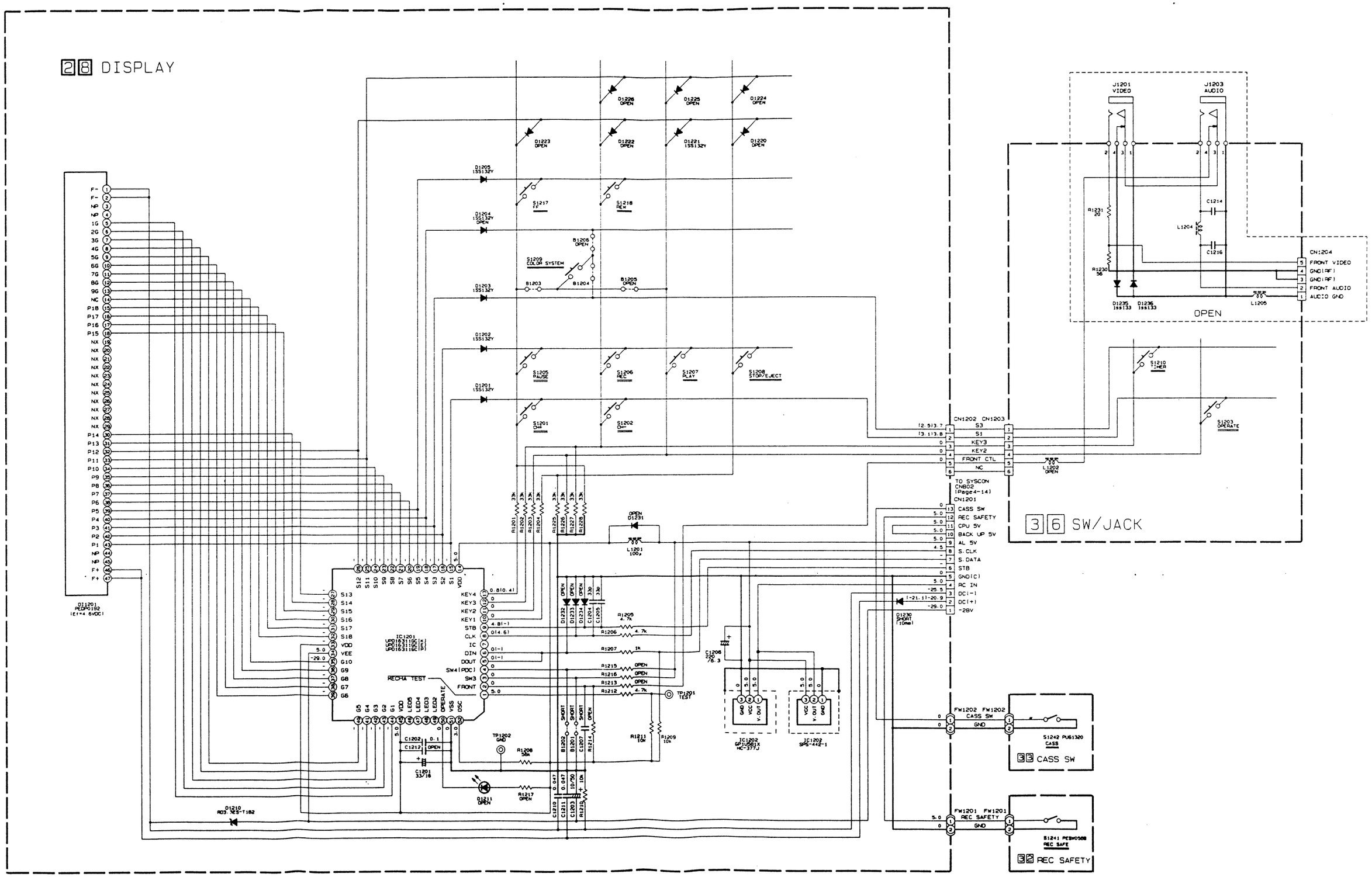
COMPONENT PARTS LOCATION GUIDE <SW/JACK PWB>

REF.No.	LOCATION			REF.No.	LOCATION		
CAPACITOR				OTHERS			
C1213	A	D	2A	J1201	A	D	3A
C1214	A	D	2B	J1202	A	D	3A
C1215	A	D	2B	J1203	A	D	2A
C1216	A	D	2B	S1201	A	D	1A
CONNECTOR				S1202	A	D	1A
CN1203	A	D	1A	S1203	A	D	3B
CN1204	A	D	2C	S1204	A	D	1B
DIODE				S1210	A	D	2B
D1235	A	D	3B				
D1236	A	D	3B				
COIL							
L1202	A	D	3A				
L1203	A	D	2A				
L1204	A	D	2B				
L1205	A	D	3B				
L1206	A	D	2A				
RESISTOR							
R1230	A	D	3B				
R1231	A	D	3B				



4.23 DISPLAY, SW/JACK, REC SAFETY AND CASSETTE SW SCHEMATIC DIAGRAMS

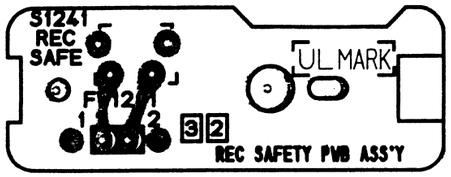
-for HR-A630MS/MS(C)-



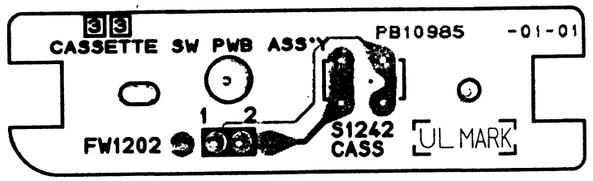
4.24 DISPLAY, SW/JACK, REC SAFETY AND CASSETTE SW CIRCUIT BOARDS

-for HR-A630MS/MS(C)-

-REC SAFETY-



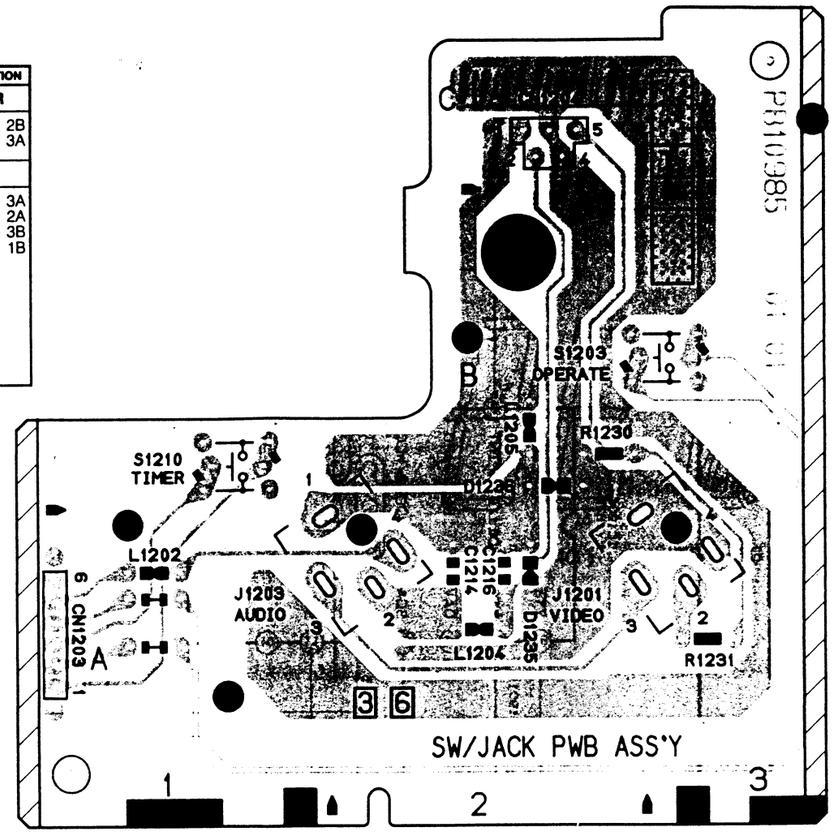
-CASSETTE SW-



-SW/JACK-

COMPONENT PARTS LOCATION GUIDE <SW/JACK>

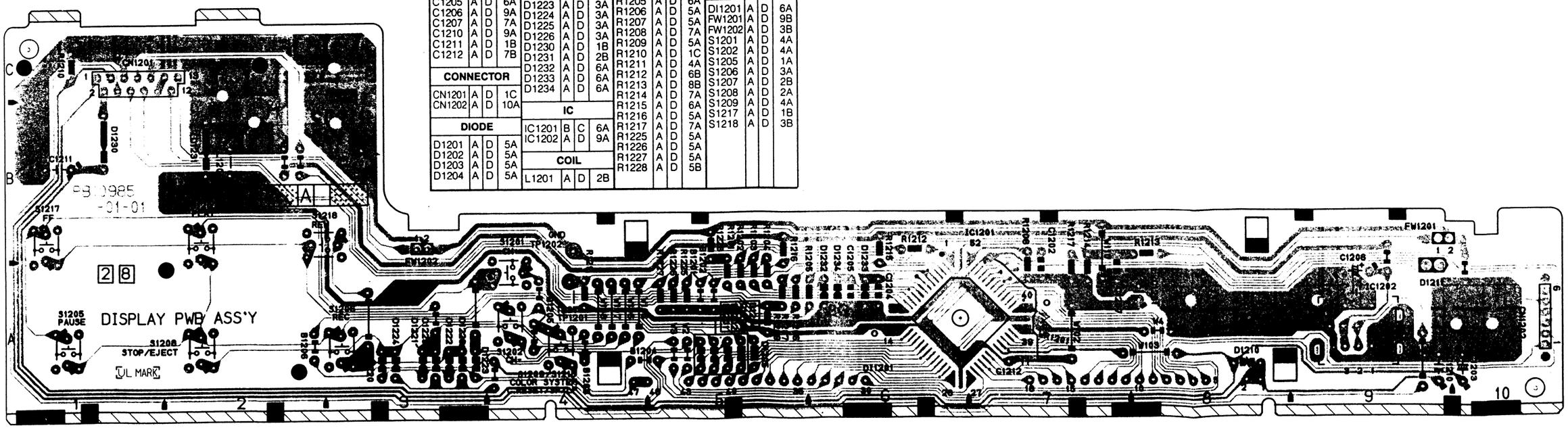
REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		**RESISTOR**	
C1214	A D 2A	R1230	A D 2B
C1216	A D 2A	R1231	A D 3A
CONNECTOR		**OTHERS**	
CN1203	A D 1A	J1201	A D 3A
DIODE		J1203	A D 2A
D1235	A D 2A	S1203	A D 3B
D1236	A D 2B	S1210	A D 1B
COIL			
L1202	A D 1A		
L1204	A D 2A		
L1205	A D 2B		



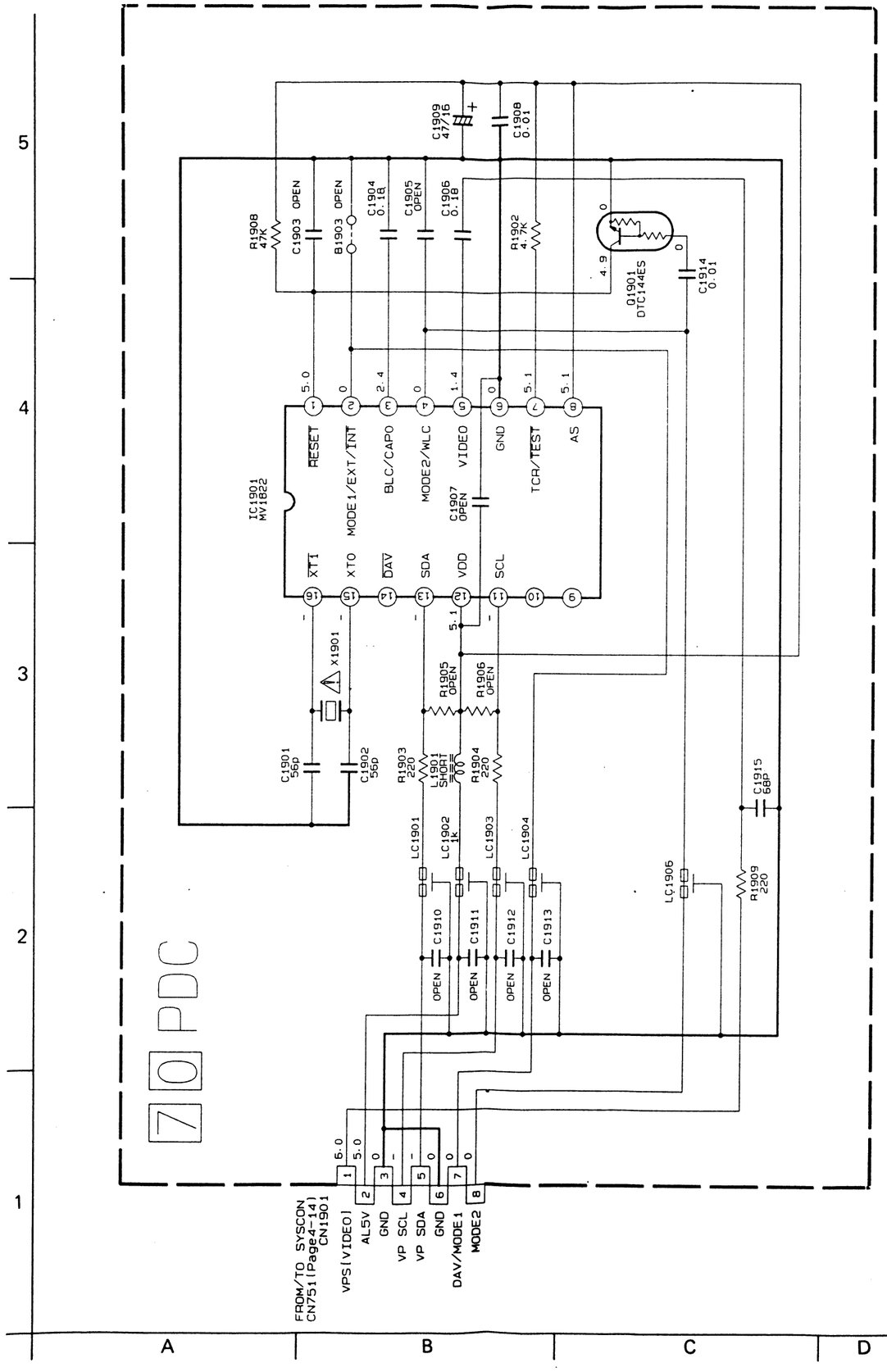
-DISPLAY-

COMPONENT PARTS LOCATION GUIDE <DISPLAY>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		D1205	A D 5A	**RESISTOR**		**TEST POINT**	
C1201	A D 8A	D1210	A D 8A	R1201	A D 5A	TP1201	A D 4A
C1202	A D 7A	D1211	A D 9A	R1202	A D 5A	TP1202	A D 4B
C1203	A D 10A	D1220	A D 3A	R1203	A D 5A	**OTHERS**	
C1204	A D 6A	D1221	A D 3A	R1204	A D 5A	DI1201	A D 6A
C1205	A D 6A	D1222	A D 3A	R1205	A D 6A	FW1201	A D 9B
C1206	A D 9A	D1223	A D 3A	R1206	A D 5A	FW1202	A D 3B
C1207	A D 7A	D1224	A D 3A	R1207	A D 5A	S1201	A D 4A
C1210	A D 9A	D1225	A D 3A	R1208	A D 7A	S1202	A D 4A
C1211	A D 1B	D1226	A D 3A	R1209	A D 5A	S1205	A D 1A
C1212	A D 7B	D1230	A D 1B	R1210	A D 1C	S1206	A D 3A
CONNECTOR		D1231	A D 2B	R1211	A D 4A	S1207	A D 2B
CN1201	A D 1C	D1232	A D 6A	R1212	A D 6B	S1208	A D 2A
CN1202	A D 10A	D1233	A D 6A	R1213	A D 8B	S1209	A D 4A
DIODE		D1234	A D 6A	R1214	A D 7A	S1217	A D 1B
D1201	A D 5A	**IC**		R1215	A D 6A	S1218	A D 3B
D1202	A D 5A	IC1201	B C 6A	R1216	A D 5A		
D1203	A D 5A	IC1202	A D 9A	R1217	A D 7A		
D1204	A D 5A	**COIL**		R1225	A D 5A		
		L1201	A D 2B	R1226	A D 5A		
				R1227	A D 5A		
				R1228	A D 5B		

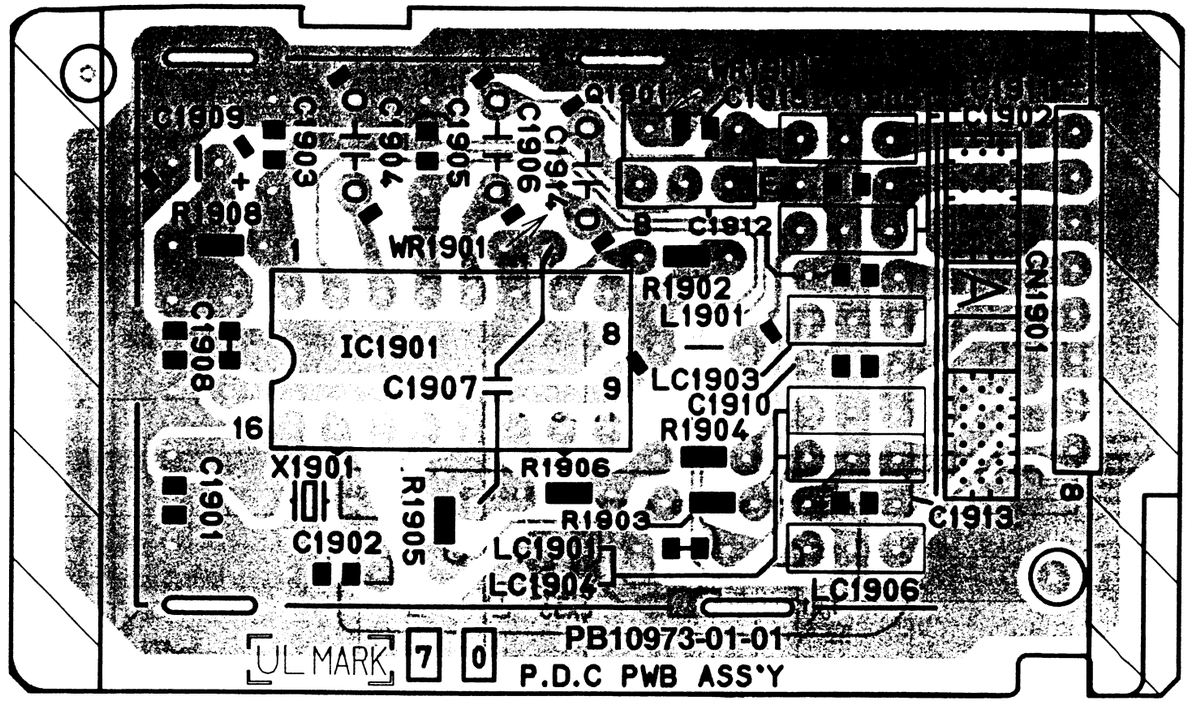


4.25 PDC SCHEMATIC DIAGRAM

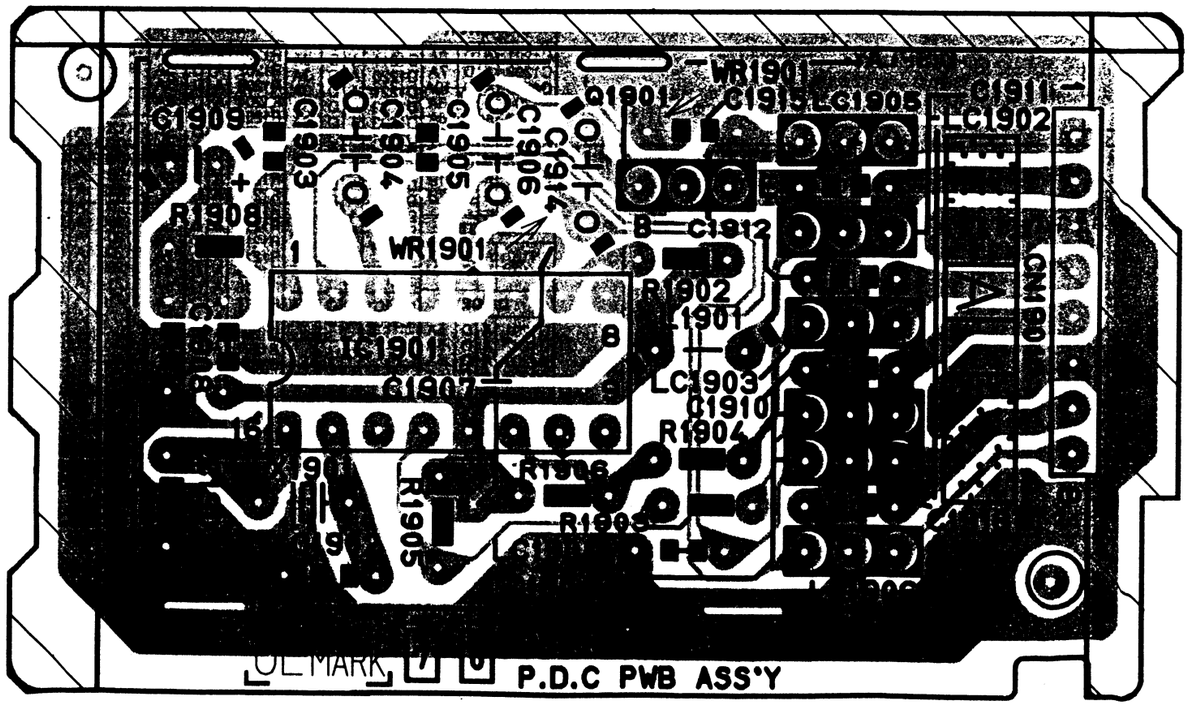


4.26 PDC CIRCUIT BOARDS

-for HR-J636MS-



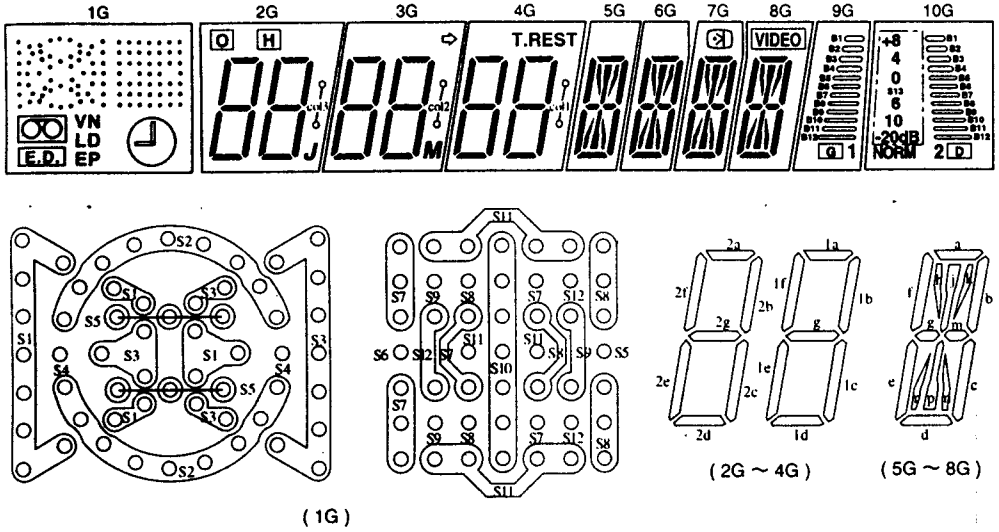
-for HR-A630MS-



4.27 FDP GRID ASSIGNMENT AND ANODE CONNECTION

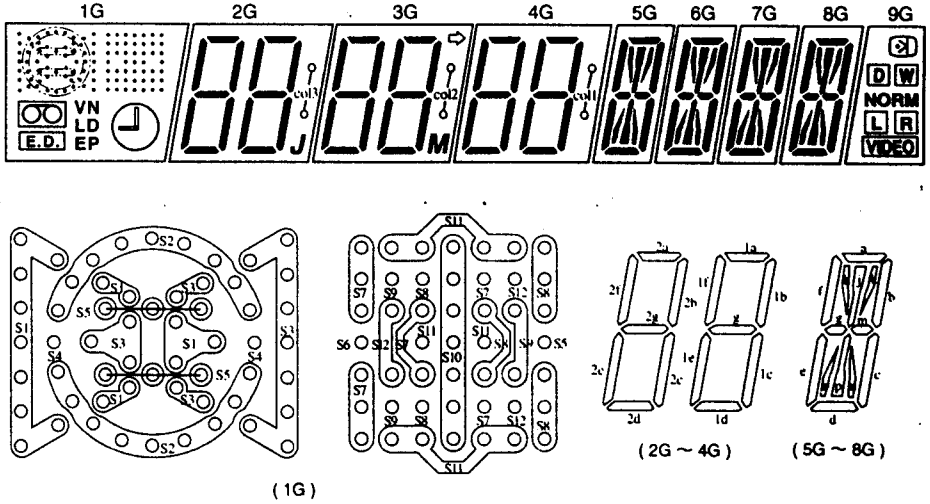
-for HR-J636MS-

GRID ASSIGNMENT



-for HR-A630MS/MS(C)

GRID ASSIGNMENT



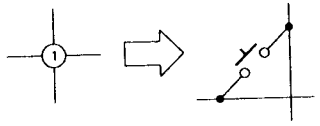
ANODE CONNECTION

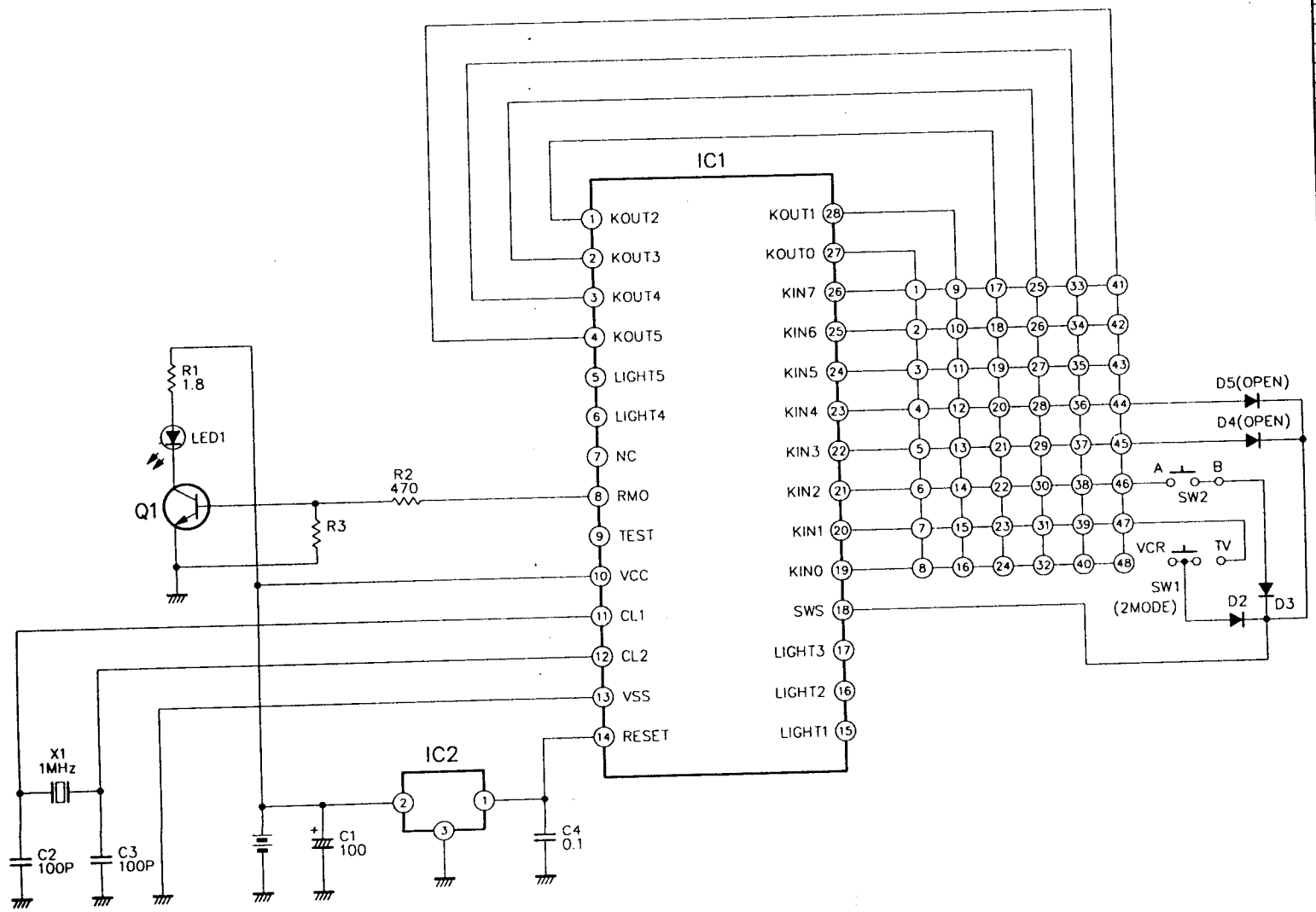
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18
1G	S1	S2	S4	S5	S3	S6	S7	S8	S12	S9	S11	S10	👓	VN	LD	🕒	EP	E.D.
2G	2a	2b	2f	2g	2c	2e	2d	*J*	1a	1b	1f	1g	1c	1e	1d	col3	O	H
3G	2a	2b	2f	2g	2c	2e	2d	*M*	1a	1b	1f	1g	1c	1e	1d	col2	⇨	—
4G	2a	2b	2f	2g	2c	2e	2d	—	1a	1b	1f	1g	1c	1e	1d	col1	T.REST	—
5G	a	b	f	h	j	k	g	m	c	e	n	p	r	d	—	—	—	—
6G	a	b	f	h	j	k	g	m	c	e	n	p	r	d	—	—	—	—
7G	a	b	f	h	j	k	g	m	c	e	n	p	r	d	—	—	🕒	—
8G	a	b	f	h	j	k	g	m	c	e	n	p	r	d	—	—	VIDEO	—
9G	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	O	1	—	—	—	—
10G	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	H	2	S13	NORM	—	—

ANODE CONNECTION

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18
1G	S1	S2	S4	S5	S3	S6	S7	S8	S12	S9	S11	S10	👓	VN	LD	🕒	EP	E.D.
2G	2a	2b	2f	2g	2c	2e	2d	*J*	1a	1b	1f	1g	1c	1e	1d	col3	—	—
3G	2a	2b	2f	2g	2c	2e	2d	*M*	1a	1b	1f	1g	1c	1e	1d	col2	⇨	—
4G	2a	2b	2f	2g	2c	2e	2d	—	1a	1b	1f	1g	1c	1e	1d	col1	—	—
5G	a	b	f	h	j	k	g	m	c	e	n	p	r	d	—	—	—	—
6G	a	b	f	h	j	k	g	m	c	e	n	p	r	d	—	—	—	—
7G	a	b	f	h	j	k	g	m	c	e	n	p	r	d	—	—	—	—
8G	a	b	f	h	j	k	g	m	c	e	n	p	r	d	—	—	—	—
9G	🕒	D	W	NORM	L	R	VIDEO	—	—	—	—	—	—	—	—	—	—	—

REMOTE CONTROLLER.



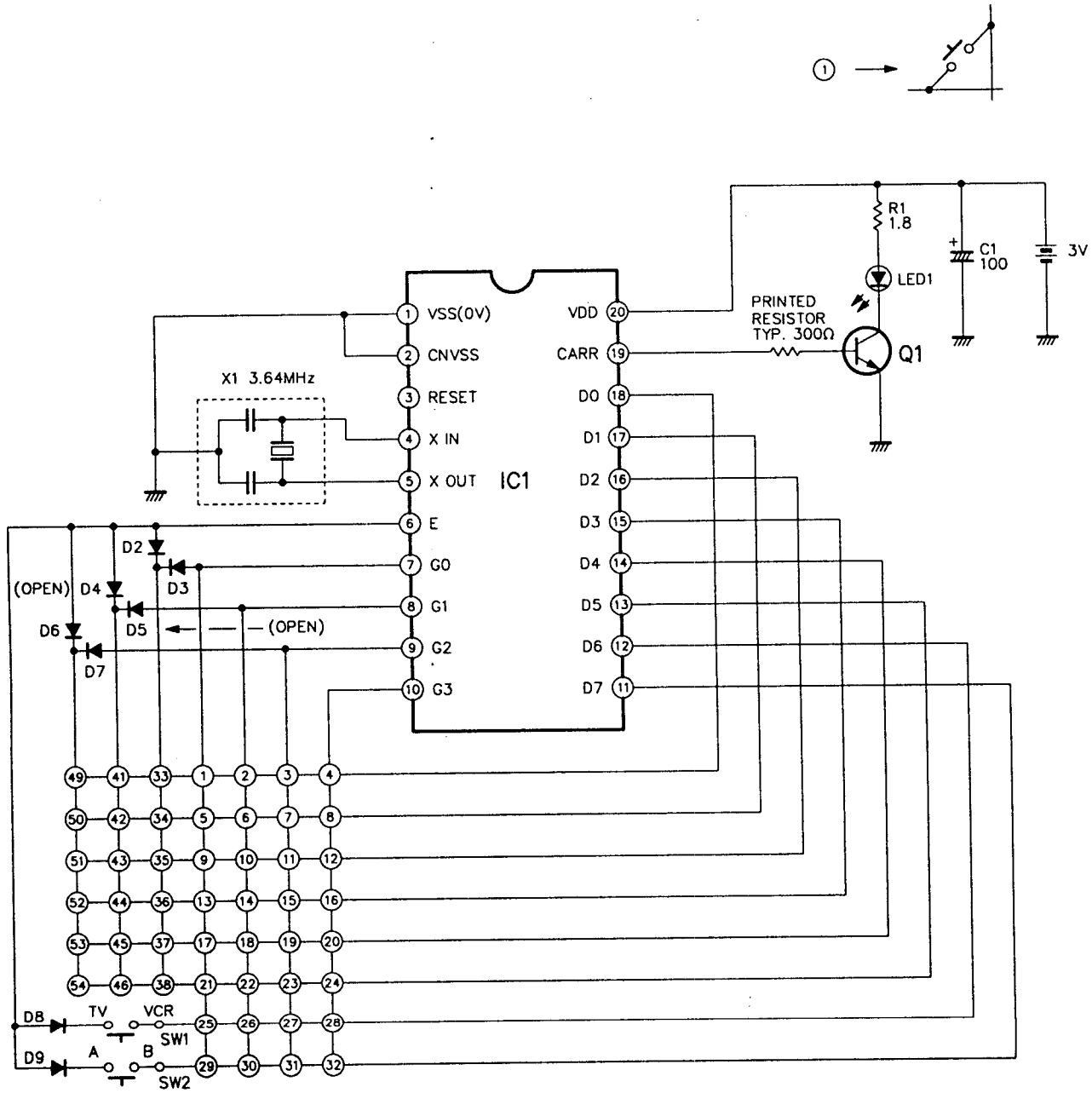


Key No.	Key Name
1	PUSH JOG >>
2	–
3	R.A.EDIT
4	SCENE FINDER
5	PRG CHK
6	7
7	8
8	9
9	ILLUMI GUIDE
10	TV PROG +
11	CH +/TV VOL +
12	PROG
13	OK
14	CANCEL
15	0
16	TIMER
17	OPERATE
18	–
19	AUDIO MONITOR
20	–/--
21	TV/VIDEO
22	RE-VIEW
23	CH SEARCH
24	CH STORE
25	STOP –
26	DATE +
27	DATE –
28	START –
29	TV PROG –
30	CLOCK
31	DISPLAY
32	MODE
33	START +
34	PUSH JOG <<
35	PLAY
36	REW
37	FF
38	1
39	2
40	3
41	CH –/TV VOL –
42	STOP +
43	STOP
44	REC
45	PAUSE
46	4
47	5
48	6
44+35	REC PLAY
44+45	REC PAUSE

PEAC0442

NOTES:
1. All parts shown in this schematic are critical for safety.
2. This schematic is only for reference.
Avoid replacing individual parts.
Replace the entire unit only.

REMOTE CONTROL



KEY NUMBER	FUNCTION
1	PROG
2	1
3	3
4	2
5	(SCENE FINDER)
6	CLOCK
7	(MODE)
8	DISPLAY
9	AUDIO MONITOR
10	-/--
11	OPERATE
12	TV/VIDEO
13	CH SET
14	4
15	6
16	5
17	STORE
18	CANCEL
19	TIMER
20	0
21	STOP +
22	START +
23	TV PROG +
24	DATE +
25	STOP -
26	START -
27	TV PROG -
28	DATE -
29	RE-VIEW
30	7
31	9
32	8
33	-
34	CH-/TV VOL-
35	PUSH JOG <<
36	-
37	-
38	(ILLUM)
41	-
42	CH+/TV VOL+
43	PUSH JOG >>
44	PROG CHECK
45	(R. A. EDIT)
46	PAUSE
49	REC
50	STOP
51	REW
52	OK
53	PLAY
54	FF
49+53	REC+PLAY
49+46	REC+PAUSE

PEAC0452

-for HR-A630MS/MS(C)-

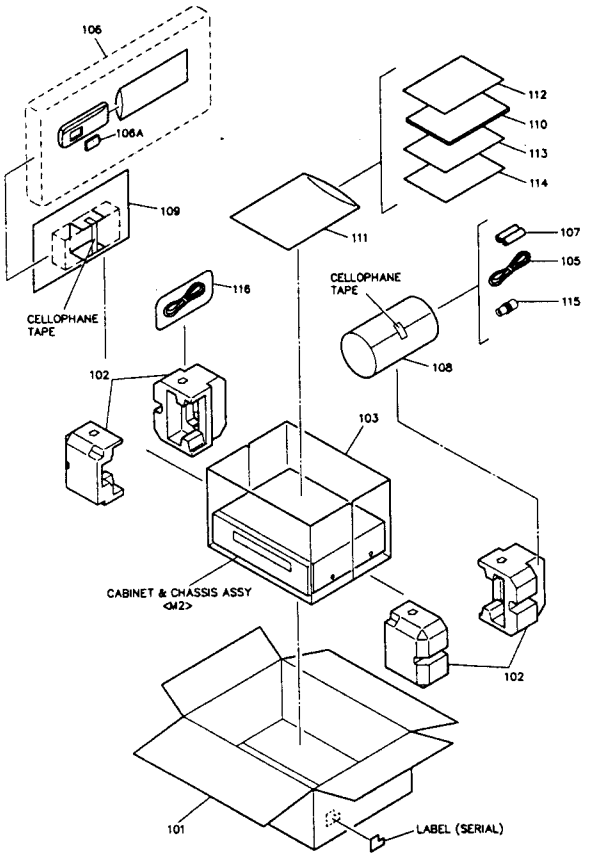
NOTE:
1. All parts shown in this schematic are critical for safety.
2. This schematic is only for reference.
Avoid replacing individual parts.
Replace the entire unit only.

SECTION 5
PARTS LIST

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

5.1 PACKING AND ACCESSORY ASSEMBLY <M1>



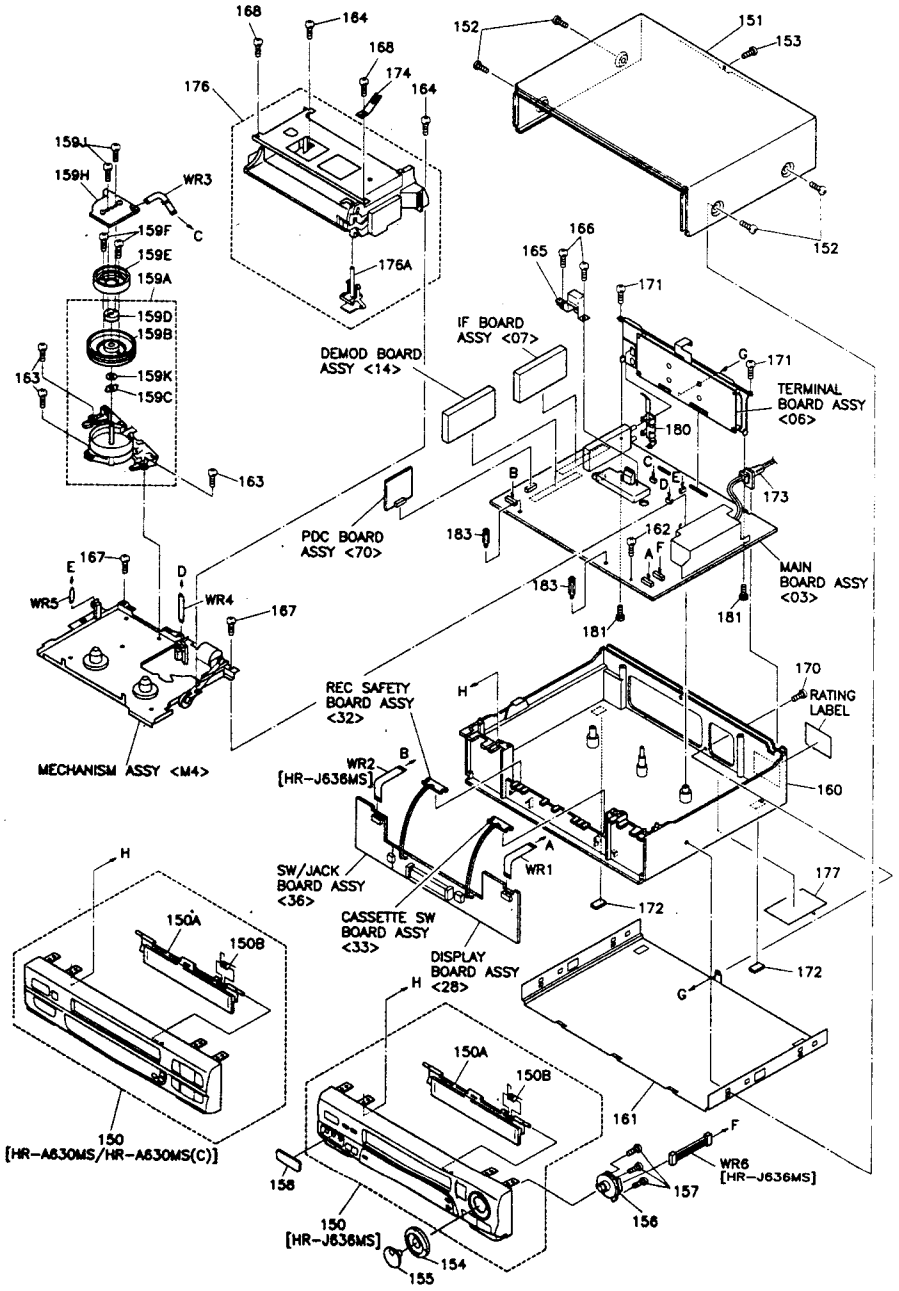
⚠ REF No.	PART No.	PART NAME, DESCRIPTION
**********	**********	**********
		PACKING AND ACCESSORY ASSEMBLY <M1>
101	PQ35532-47	PACKING CASE,J636MS
	PQ35532-53	PACKING CASE,A630MS
	PQ35532-55	PACKING CASE,A630MS(C)
102	PQ35533A-2	CUSHION ASSEMBLY
103	PQM30021-93	POLY(FOAM)BAG
105	PEAC0300-02	RF CABLE
106	PQ21953J	REMOTE CONTROLLER,J630MS
	PQ21953K	REMOTE CONTROLLER,A630MS/MS(C)
106A	PQ46614	COVER(BATTERY)

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION
107	R6PRPA-2ST	BATTERY,X2
108	PQ35364	POLY BAG
109	PQ35551	SHEET,REMOTE CONTROLLER
⚠ 110	PU30425-1838	INSTRUCTIONS,A630MS/MS(C)
⚠	PU30425-1818	INSTRUCTIONS,J636MS
111	PQ35364-4	POLY BAG
112	BT-20132	GUARANTY CARD
113	BT-20066A	E.DISTRI.LIST
114	PU36564	SHEET(MINITEL)
115	PEAC0429	P/S CONV PLUG
116	PEVT0003	PERI CABLE(J2T)

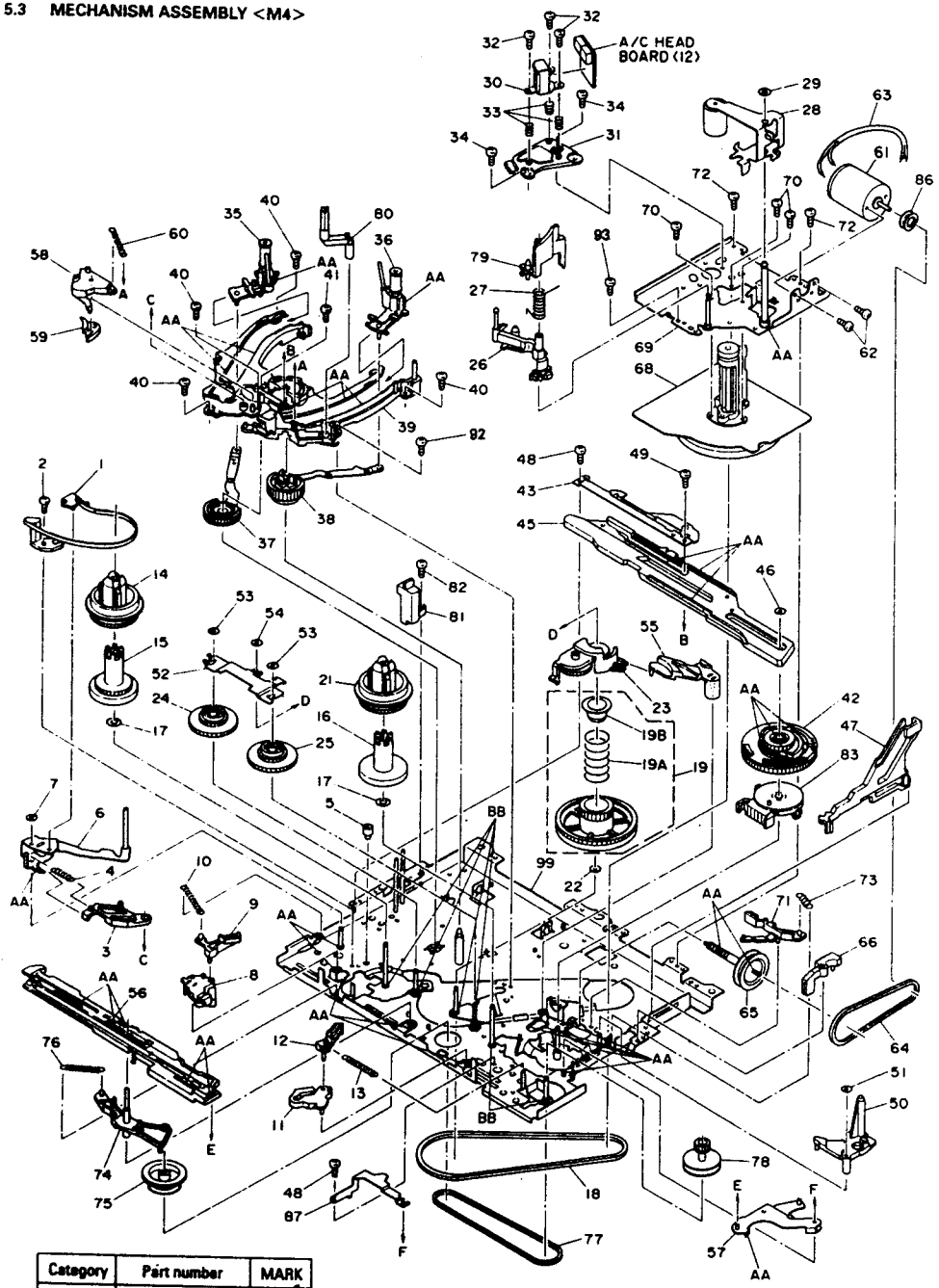
5.2 CABINET AND CHASSIS ASSEMBLY <M2>

BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.



#△	REF No.	PART No.	PART NAME, DESCRIPTION
	**********	**********	**********
			CABINET AND CHASSIS ASSEMBLY <M2>
	150	PQ11889N	FRONT PANEL ASSEMBLY,A630MS/MS(C)
		PQ11906L	FRONT PANEL ASSEMBLY,J636MS
	150A	PQ21898-6	CASSETTE DOOR,A630MS/MS(C)
		PQ21915-7	CASSETTE DOOR,J636MS
	150B	PQ46448	TORSION SPRING
△	151	PQ11676-7	TOP COVER
	152	SDSF3010M	SCREW,X4 TOP COVER(SIDE)
	153	SDSF3010M	SCREW,TOP COVER(REAR)
	154	PQ35471	KNOB (SHUTTLE),J636MS
	155	PQ35472	KNOB (JOG),J636MS
	156	PEME0757-03	JOG SHUTTLE ASSY,J636MS
	157	SDSF2608Z	SCREW,X3 JOG J636MS
	158	PQ35518	COVER (JACK),J636MS
	159A	PDM2261AJ	DRUM SUB ASSEMBLY
	159B	PDM3353AL	UPPER DRUM ASSEMBLY
	159C	PDM4440A	BRUSH ASSEMBLY
	159D	PDM4345A	COLLAR ASSEMBLY
	159E	PDZ0141-2	ROTOR ASSEMBLY
	159F	SPSH2660Z	SCREW,X2
	159H	PDZ0141-1-2	STATOR ASSEMBLY
	159J	SPSP2606Z	SCREW,X2
	159K	PDM4050-9	WASHER
△	160	PQ11666-3-14	BOTTOM CHASSIS
△	161	PQ11668-2	BOTTOM COVER
	162	SDSF3010Z	SCREW,MAIN BOARD
	163	SPST2608Z	SCREW,X3 DRUM
	164	SPST2606Z	SCREW,X2 CASS HOUS ASSY
	165	PQ35385-1-1	SHIELD COVER
	166	SDST2606Z	SCREW,X2 PRE
	167	SDSF4012Z	SCREW,X2 MECH
	168	SDSF3010Z	SCREW,X2 CASS HOUS ASSY
	170	SDSF3010M	SCREW,TERMINAL
	171	SDSF3010Z	SCREW,X2 TERMINAL
	172	PQ43013-3	FOOT,X2
△	173	QMP4A10-170	POWER CORD
	174	PQ41556	EARTH PLATE,EMC
	176	PUS29724D	CASSETTE HOUSING ASSEMBLY
	176A	PQ46359	CASSETTE SWITCH PIN
△	177	PQ46485	SPACER(SAFETY)
	180	PQ21623-1-2	EARTH PLATE(RF)
	181	SDSF3008Z	SCREW,X2 EARTH PLATE
	183	PEME0947-01-01	SPACER,X2 MECH
	WR1	PW30802-1314	WIRE,DISP/SW
	WR2	PW30802-0714	WIRE,SW/JACK J636MS
	WR3	PW30803-0414	WIRE,DRUM
	WR4	PW30101-C0HH887	WIRE,A/C HEAD
	WR5	PW30701-30AAYY	WIRE,FE HEAD
	WR6	PW30218-0831613	WIRE,JOG J636MS



Category	Part number	MARK
Grease	KYODO-SH-P	AA
Oil	COSMO-HV56	BB

NOTE: The section marked in AA and BB indicate lubrication and greasing areas.

MECHANISM ASSEMBLY <M4>

△ REF No.	PART No.	PART NAME, DESCRIPTION
1	PQ46298A-5	TENSION BAND ASSEMBLY
2	SDST2608Z	SCREW
3	PQ35012-1-3	TENSION ARM LEVER
4	PQM30001-385109	TENSION SPRING
5	PQ46302-1-3	ADJUST PIN
6	PQ46303B-7	TENSION ARM ASSEMBLY
7	PQM30017-47	SLIT WASHER
8	PQ46305B-3	MAIN BRAKE ASSEMBLY (SUPPLY)
9	PQ46306A-3	SUB BRAKE ASSEMBLY (SUPPLY)
10	PQM30001-393	TENSION SPRING
11	PQ46308A-5	MAIN BRAKE ASSEMBLY (TAKE UP)
12	PQ46309Å-4	SUB BRAKE ASSEMBLY (TAKE UP)
13	PQM30001-389102	TENSION SPRING
14	PQ46499A-4	REEL ASSEMBLY (SUPPLY)
15	PQ35014-1-1	SLIT DISK (SUPPLY)
16	PQ35015-1-1	SLIT DISK (TAKE UP)
17	PQM30018-69	SPACER,X2
18	PQM30003-38	BELT(CAPSTAN)
19	PQ46497B-2	PULLEY ASSEMBLY
19A	PQM30002-233	COMPRESION SPRING
19B	PQ46311	SPRING CAP
21	PQ46498A-3	REEL ASSEMBLY (TAKE UP)
22	PQM30018-69	SPACER
23	PQ46312B-8	IDLER ARM ASSEMBLY
24	PQ46316A-4	CLUTCH UNIT (SUPPLY)
25	PQ46323A-1	CLUTCH UNIT (TAKE UP)
26	PQ46325B-9	GUIDE ARM ASSEMBLY
27	PQ46326-2	TORSION SPRING
28	PQ46327A-3	PINCH ROLLER ARM ASSEMBLY
29	PQM30017-24	SLIT WASHER,P LEVER
30	PEHE0182	AUDIO CONTROL HEAD
31	PQ35206-1-3	HEAD BASE
32	PQ43687A	SPECIAL SCREW,X3
33	PQM30002-192	COMPRESSION SPRING,X3
34	SDSP2604Z	SCREW,X2
35	PQ46595A	POLE BASE ASSEMBLY (SUPPLY)
36	PQ46597A	POLE BASE ASSEMBLY (TAKE UP)
37	PQ46332A-3	LOADING ARM ASSEMBLY (SUPPLY)
38	PQ46337A-7	LOADING ARM ASSEMBLY (TAKE UP
39	PQ11657-1-9	GUIDE RAIL
40	SPST2608Z	SCREW,X4
41	SDST2612Z	SCREW

#△ REF No.	PART No.	PART NAME, DESCRIPTION
42	PQ21684-1-3	CONTROL CAM
43	PQ35138-1-2	CONTROL BRACKET
45	PQ11658-1-13	CONTROL PLATE
46	PQM30017-8	SLIT WASHER
47	PQ21685-2-9	PINCH PLATE
48	SPST2606Z	SCREW,X2
49	SPSF2608M	SCREW
50	PQ46342B-10	LEVER ASSEMBLY
51	PQM30017-8	SLIT WASHER
52	PQ35083-1-8	REEL BRACKET
53	PQM30017-51	SLIT WASHER,X2
54	Q03093-630	WASHER
55	PQ35026-1-7	IDLER LEVER
56	PQ11659-1-12	SLIDE PLATE
57	PQ46344A-2	CHANGE LEVER ASSEMBLY
58	PQ21686-1-3	TAKE UP LEVER ASSEMBLY
59	PQ46345-1-2	TAKE UP HEAD
60	PQM30001-387106	TENSION SPRING
△ 61	PU60628-3-2	LOADING MOTOR
62	SPSP3003Z	SCREW,X2
63	PW30101-80AJ632	WIRE
64	PQM30003-39	BELT
65	PQ46395B	WORM GEAR ASSEMBLY
66	PQ21699-1-2	WORM BEARING
△ 68	PU61487-2	CAPSTAN MOTOR
69	PQ46347F-16	SUB DECK ASSEMBLY
70	SPSG2608Z	SCREW,X3
71	PQ46356C-3	CAPSTAN BRAKE ASSEMBLY
72	SPST2606Z	SCREW,X2
73	PQM30001-384101	TENSION SPRING,CAPSTAN BRAKE
74	PQ46353A-2	CHANGE ARM ASSEMBLY
75	PQ46354	CHANGE GEAR
76	PQM30001-386	TENSION SPRING
77	PQM30003-40	BELT
78	PQ46355	CASSETTE GEAR
79	PQ35030-1-5	LID GUIDE
80	PQ21689-2	LED PRISM
81	PEHE0237	FULL ERASE HEAD
82	SDST2610Z	SCREW
83	PU61432-1-1	ROTARY ENCODER
86	PQ43546-1-2	MOTOR PULLEY
87	PQ35217-1-2	CONTROL BRACKET 2
92	SDST2608Z	SCREW
93	SDSP2604Z	SCREW
99	PQ21680H	MAIN DECK ASSEMBLY

5.4 ELECTRICAL PARTS LIST

MAIN BOARD ASSEMBLY <03>

=△ REF No.	PART No.	PART NAME, DESCRIPTION
PW1	PB10993G	MAIN BOARD ASSEMBLY,J636MS
	PB10993H	MAIN BOARD ASSEMBLY,A630MS
	PB10993J	MAIN BOARD ASSEMBLY,A630MS(C)
IC1	HA118203AF	IC
IC2	MSM7470-79MS-XE	IC
IC101	HA118195NT	IC
IC251	LA7337	IC
IC401	JCP0056	IC
IC402	BA6138	IC,J636MS
IC501	LA7257	IC
IC701	HD6433929TA43F	QFP IC (MCU)
IC702	24LC08B/P	IC
	or AT24C08-10PC	IC
	or X24C08-10P	IC
IC703	S-80728AN-Z	IC
	or RE5VL28A	IC
IC704	TA7291S	IC
IC705	M50253P	IC
	or BU2090	IC
IC706	M66007P	IC
IC1001	BA15218N	IC
	or M5223L	IC
	or XRA15218N	IC
IC1101	BU2885BS	IC
	or BU2884BS	IC
IC1301	LC74783-9153	IC (OSD),J636MS
Q1	2SC4081(QRS)	TRANSISTOR
	or 2SD1819A(QRS)	TRANSISTOR
Q9	DTA144WU	TRANSISTOR,J636MS
	or UN511E	TRANSISTOR,J636MS
Q13	DTC144WU	TRANSISTOR
	or UN521E	TRANSISTOR
Q15	2SA1576(QRS)	TRANSISTOR
	or 2SB1218A(QRS)	TRANSISTOR
Q16	DTC144WU	TRANSISTOR
	or UN521E	TRANSISTOR
Q20	DTA144WU	TRANSISTOR
	or UN511E	TRANSISTOR
Q21	2SC4081(QRS)	TRANSISTOR
	or 2SD1819A(QRS)	TRANSISTOR
Q101	2SC4081(QRS)	TRANSISTOR
	or 2SD1819A(QRS)	TRANSISTOR
Q102	DTA144WU	TRANSISTOR,J636MS
	or UN511E	TRANSISTOR,J636MS
Q103	DTC144WU	TRANSISTOR,J636MS
	or UN521E	TRANSISTOR,J636MS
Q104	2SA1576(QRS)	TRANSISTOR
	or 2SB1218A(QRS)	TRANSISTOR
Q252	2SB1218A(QRS)	TRANSISTOR
Q253	2SB1218A(QRS)	TRANSISTOR
Q257	2SA1576(QRS)	TRANSISTOR
	or 2SB1218A(QRS)	TRANSISTOR
Q258	2SA1576(QRS)	TRANSISTOR
	or 2SB1218A(QRS)	TRANSISTOR
Q259	2SA1576(QRS)	TRANSISTOR
	or 2SB1218A(QRS)	TRANSISTOR
Q260	2SA1576(QRS)	TRANSISTOR
	or 2SB1218A(QRS)	TRANSISTOR

#△ REF No.	PART No.	PART NAME, DESCRIPTION
Q270	2SC4081(QRS)	TRANSISTOR
	or 2SD1819A(QRS)	TRANSISTOR
Q304	DTA114EU	TRANSISTOR
	or UN5111	TRANSISTOR
Q305	2SC4081(QRS)	TRANSISTOR
	or 2SD1819A(QRS)	TRANSISTOR
Q306	2SC4081(QRS)	TRANSISTOR
	or 2SD1819A(QRS)	TRANSISTOR
Q307	2SA1576(QR)	TRANSISTOR
Q308	2SA1576(QR)	TRANSISTOR
Q309	DTA114EU	TRANSISTOR,J636MS
	or UN5111	TRANSISTOR,J636MS
Q310	2SC4081(QRS)	TRANSISTOR
	or 2SD1819A(QRS)	TRANSISTOR
Q311	2SC4081(QRS)	TRANSISTOR,J636MS
	or 2SD1819A(QRS)	TRANSISTOR,J636MS
Q314	DTA144WU	TRANSISTOR
	or UN511E	TRANSISTOR
Q451	2SA1577(RS)	TRANSISTOR,J636MS A630MS(C)
Q452	2SA1576(QRS)	TRANSISTOR,J636MS A630MS(C)
	or 2SB1218A(QRS)	TRANSISTOR,J636MS A630MS(C)
Q453	DTC144TU	TRANSISTOR,J636MS A630MS(C)
	or UN5210	TRANSISTOR,J636MS A630MS(C)
Q454	DTC144TU	TRANSISTOR,J636MS A630MS(C)
	or UN5210	TRANSISTOR,J636MS A630MS(C)
Q455	DTC144TU	TRANSISTOR,J636MS A630MS(C)
	or UN5210	TRANSISTOR,J636MS A630MS(C)
Q456	DTA144WU	TRANSISTOR,J636MS A630MS(C)
	or UN511E	TRANSISTOR,J636MS A630MS(C)
Q457	DTC144WU	TRANSISTOR,J636MS A630MS(C)
	or UN521E	TRANSISTOR,J636MS A630MS(C)
Q503	2SC4081(QRS)	TRANSISTOR
	or 2SD1819A(QRS)	TRANSISTOR
Q701	2SC4081(QRS)	TRANSISTOR
	or 2SD1819A(QRS)	TRANSISTOR
Q702	DTC114WU	TRANSISTOR
Q703	DTC114EU	TRANSISTOR,J636MS
	or UN5211	TRANSISTOR,J636MS
Q704	PN268VI	PH TRANSISTOR
Q705	PN268VI	PH TRANSISTOR
Q708	DTC114EU	TRANSISTOR
	or UN5211	TRANSISTOR
Q710	2SC4081(QRS)	TRANSISTOR
	or 2SD1819A(QRS)	TRANSISTOR
Q901	2SK2632-CB14	FE TRANSISTOR
Q902	2SC3616(ML)	TRANSISTOR
Q951	2SD2061(F)	TRANSISTOR
Q952	2SC4081(RS)	TRANSISTOR
Q953	2SC3616(MLK)	TRANSISTOR
Q954	DTA114EU	TRANSISTOR
Q955	2SD2144S(UVW)	TRANSISTOR
Q956	2SB1256	TRANSISTOR,J636MS
Q957	DTC114TU	TRANSISTOR,J636MS
Q958	2SC1740S(RS)	TRANSISTOR
	or 2SC3199(GB)-TJK	TRANSISTOR
Q960	2SB1256	TRANSISTOR,J636MS A630MS(C)
Q1002	2SB810H,J	TRANSISTOR
Q1003	2SD1292(QR)	TRANSISTOR
Q1008	2SA1576(RS)	TRANSISTOR
Q1012	2SA1576(RS)	TRANSISTOR,J636MS A630MS(C)
Q1013	2SA1576(RS)	TRANSISTOR,J636MS A630MS(C)

#△ REF No.	PART No.	PART NAME, DESCRIPTION
Q1014	DTC144WU	TRANSISTOR,J636MS A630MS(C)
	or UN521E	TRANSISTOR,J636MS A630MS(C)
Q1015	DTC144WU	TRANSISTOR,J636MS A630MS(C)
	or UN521E	TRANSISTOR,J636MS A630MS(C)
Q1101	DTC114EU	TRANSISTOR,J636MS
	or UN5211	TRANSISTOR,J636MS
Q1301	2SC4081(QRS)	TRANSISTOR,J636MS
	or 2SD1819A(QRS)	TRANSISTOR,J636MS
Q1302	2SA1576(QRS)	TRANSISTOR,J636MS
	or 2SB1218A(QRS)	TRANSISTOR,J636MS
Q1401	2SA1576(QRS)	TRANSISTOR
	or 2SB1218A(QRS)	TRANSISTOR
Q1402	2SA1576(QRS)	TRANSISTOR
	or 2SB1218A(QRS)	TRANSISTOR
Q1951	2SA1576(QRS)	TRANSISTOR
	or 2SB1218A(QRS)	TRANSISTOR
Q1952	2SA1576(QRS)	TRANSISTOR
	or 2SB1218A(QRS)	TRANSISTOR
D5	1SS133	DIODE,J636MS
	or MA165	DIODE,J636MS
	or 1N4148M	DIODE,J636MS
D10	1SS133	DIODE,J636MS
	or 1N4148M	DIODE,J636MS
	or MA165	DIODE,J636MS
D11	1SS133	DIODE
	or MA165	DIODE
	or 1N4148M	DIODE
D13	1SS133	DIODE
	or 1N4148M	DIODE
	or MA165	DIODE
D251	1SS133	DIODE
	or MA165	DIODE
	or 1N4148M	DIODE
D252	1SS133	DIODE
	or 1N4148M	DIODE
	or MA165	DIODE
D253	1SS133	DIODE,J636MS
	or MA165	DIODE,J636MS
	or 1N4148M	DIODE,J636MS
D254	1SS133	DIODE
	or 1N4148M	DIODE
	or MA165	DIODE
D301	1N4148M	DIODE
	or 1SS133	DIODE
D451	1N4148M	DIODE,J636MS A630MS(C)
	or 1SS133	DIODE,J636MS A630MS(C)
D481	1N4148M	DIODE
	or 1SS133	DIODE
D502	1N4148M	DIODE
	or 1SS133	DIODE
D503	1N4148M	DIODE
	or 1SS133	DIODE
D504	1N4148M	DIODE
	or 1SS133	DIODE
D505	1N4148M	DIODE
	or 1SS133	DIODE
D701	RD9.1ES-T1B2	ZENER DIODE
	or MTZJ9.1(B)	ZENER DIODE
D702	11ES2	DIODE
D704	11ES2	DIODE

#△ REF No.	PART No.	PART NAME, DESCRIPTION
D705	1N4148M	DIODE
	or MA165	DIODE
	or 1SS133	DIODE
D706	1N4148M	DIODE
	or 1SS133	DIODE
	or MA165	DIODE
D710	SIR-381SB3FM	LE DIODE
	or SIR-381SB3FX1M	LE DIODE
D711	1N4148M	DIODE,J636MS
	or 1SS133	DIODE,J636MS
	or MA165	DIODE,J636MS
D712	1N4148M	DIODE,J636MS
	or 1SS133	DIODE,J636MS
	or MA165	DIODE,J636MS
D713	1N4148M	DIODE,J636MS
	or 1SS133	DIODE,J636MS
	or MA165	DIODE,J636MS
D714	1N4148M	DIODE,J636MS
	or 1SS133	DIODE,J636MS
	or MA165	DIODE,J636MS
D715	1N4148M	DIODE,J636MS
	or 1SS133	DIODE,J636MS
	or MA165	DIODE,J636MS
D901	S1WB(A)60F4072X	BRIDGE DIODE
	or S1WB(A)60F4062X	BRIDGE DIODE
D908	1SS133	DIODE
	or 1N4148M	DIODE
	or MA165	DIODE
D909	UZ27BSB	ZENER DIODE
	or RD27ES-T1B2	ZENER DIODE
	or MTZJ27(B)	ZENER DIODE
D910	AU01	FR DIODE
	or ERA18-04-T2	FR DIODE
	or 10ELS4	FR DIODE
	or 1SR153-400-T2	FR DIODE
D911	AU01	FR DIODE
	or ERA18-04-T2	FR DIODE
	or 1SR153-400-T2	FR DIODE
	or 10ELS4	FR DIODE
D951	AU01Z	FR DIODE,J636MS
	or ERA18-02-T2	FR DIODE,J636MS
	or 1SR153-200-T2	FR DIODE,J636MS
	or 10ELS2	FR DIODE,J636MS
D952	FML-12S	FR DIODE
	or FCF06A20	FR DIODE
	or MA644	FR DIODE
	or YG901C2	FR DIODE
D954	FMB-24	BARRIER DIODE
	or F5KQ40B	BARRIER DIODE
	or YG801C04	SB DIODE
	or MA7D49	SB DIODE
D955	RD15ES-T1B1	ZENER DIODE
	or MTZJ15(A)	ZENER DIODE
	or UZ15BSA	ZENER DIODE
D956	RD6.2ES-T1B3	ZENER DIODE
	or UZ6.2BSC	ZENER DIODE
	or MTZJ6.2C	ZENER DIODE
D957	RD10ES-T1B3	ZENER DIODE
	or MTZJ10(C)	ZENER DIODE
	or UZ10BSC	ZENER DIODE

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
D958	RD30ES-T1B1	ZENER DIODE	
	or UZ30BSA	ZENER DIODE	
	or MTZJ30(A)	ZENER DIODE	
D960	1SS133	DIODE	
	or MA165	DIODE	
	or 1N4148M	DIODE	
D962	RD5.1JSB2	DIODE	
	or MA4051N(M)	ZENER DIODE	
D963	1SS133	DIODE	
	or 1N4148M	DIODE	
	or MA165	DIODE	
D964	11ES2	DIODE,J636MS	
	or ERA15-02	DIODE,J636MS	
D965	AU01	FR DIODE	
	or ERA18-04-T2	FR DIODE	
	or 1SR153-400-T2	FR DIODE	
	or 10ELS4	FR DIODE	
D968	AU01Z	FR DIODE	
	or ERA18-02-T2	FR DIODE	
	or 1SR153-200-T2	FR DIODE	
	or 10ELS2	FR DIODE	
D969	AU01Z	FR DIODE	
	or ERA18-02-T2	FR DIODE	
	or 1SR153-200-T2	FR DIODE	
	or 10ELS2	FR DIODE	
D1001	MTZ10AT-77	ZENER DIODE	
D1002	MTZJ33(C)	ZENER DIODE	
	or UZ33BSC	DIODE	
R1	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R2	QRSA08J-681YN	RESISTOR	680Ω,1/10W
R3	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R4	QRSA08J-182YN	RESISTOR	1.8kΩ,1/10W
R5	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R6	QRSA08J-821YN	RESISTOR	820Ω,1/10W
R7	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R8	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R9	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
R10	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R11	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R12	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R13	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R14	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R15	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R16	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R17	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R31	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R34	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R35	QRSA08J-153YN	RESISTOR	15kΩ,1/10W
R36	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R40	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R43	QRD161J-225	RESISTOR	2.2MΩ,1/6W
R45	QRSA08J-395YN	RESISTOR	3.9MΩ,1/10W
R46	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R47	QRSA08J-681YN	RESISTOR	680Ω,1/10W
R49	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R50	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R51	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R52	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R53	QRD161J-273	RESISTOR,J636MS	27kΩ,1/6W
	QRD161J-333	RESISTOR,A630MS/MS(C)	33kΩ,1/6W
R57	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R58	QRSA08J-183YN	RESISTOR	18kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R59	QRSA08J-153YN	RESISTOR	15kΩ,1/10W
R61	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R62	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R63	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R64	QRSA08J-272YN	RESISTOR,J636MS	2.7kΩ,1/10W
R65	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R66	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R67	QRSA08J-182YN	RESISTOR,J636MS	1.8kΩ,1/10W
R68	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R101	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R102	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R103	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R104	NRVA62D-162N	RESISTOR	1.6kΩ,1/16W
R105	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R106	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R107	QRSA08J-182YN	RESISTOR	1.8kΩ,1/10W
R109	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R110	QRSA08J-821YN	RESISTOR	820Ω,1/10W
R252	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R253	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
R254	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R255	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R256	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
R257	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R258	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R259	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R262	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R263	QRD161J-912	RESISTOR	9.1kΩ,1/6W
R264	QRSA08J-272YN	RESISTOR	2.7kΩ,1/10W
R265	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R270	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R271	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
R272	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R273	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R278	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R280	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R281	QRSA08J-153YN	RESISTOR	15kΩ,1/10W
R282	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R283	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
R284	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R285	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R286	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R291	QRSA08J-124YN	RESISTOR	120kΩ,1/10W
R293	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R294	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R295	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R301	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R302	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R303	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R307	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R308	QRSA08J-224YN	RESISTOR	220kΩ,1/10W
R309	QRSA08J-121YN	RESISTOR	120Ω,1/10W
R310	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R312	QRSA08J-681YN	RESISTOR	680Ω,1/10W
R313	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R314	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R316	QRSA08J-153YN	RESISTOR	15kΩ,1/10W
R317	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R318	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R319	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R320	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R321	QRSA08J-473YN	RESISTOR	47kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R322	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R323	QRSA08J-101YN	RESISTOR,J636MS	100Ω,1/10W
	QRSA08J-820YN	RESISTOR,A630MS/MS(C)	82Ω,1/10W
R324	QRSA08J-123YN	RESISTOR,A630MS/MS(C)	12kΩ,1/10W
	QRSA08J-153YN	RESISTOR,J636MS	15kΩ,1/10W
R325	QRSA08J-3R3YN	RESISTOR	3.3Ω,1/10W
R326	QRSA08J-562YN	RESISTOR,A630MS/MS(C)	5.6kΩ,1/10W
	QRSA08J-472YN	RESISTOR,J636MS	4.7kΩ,1/10W
R327	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R329	QRSA08J-0R0Y	RESISTOR,J636MS	0Ω,1/10W
R330	QRSA08J-151YN	RESISTOR,J636MS	150Ω,1/10W
R331	QRSA08J-3R3YN	RESISTOR,J636MS	3.3Ω,1/10W
R332	QRSA08J-273YN	RESISTOR,J636MS	27kΩ,1/10W
R339	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R340	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R341	QRSA08J-103YN	RESISTOR,A630MS/MS(C)	10kΩ,1/10W
	QRSA08J-123YN	RESISTOR,J636MS	12kΩ,1/10W
R342	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R344	QRSA08J-224YN	RESISTOR	220kΩ,1/10W
R401	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R402	QRSA08J-393YN	RESISTOR,J636MS	39kΩ,1/10W
R403	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R404	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R405	QRSA08J-183YN	RESISTOR,J636MS	18kΩ,1/10W
R406	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R407	QRSA08J-511YN	RESISTOR	510Ω,1/10W
R408	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R409	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
R410	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R411	NRVA62B-153N	RESISTOR	15kΩ,1/16W
R412	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R413	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R414	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R415	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R416	QRSA08J-274YN	RESISTOR	270kΩ,1/10W
R417	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R418	NRVA62B-113N	RESISTOR	11kΩ,1/16W
R419	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R420	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
R421	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R422	QRSA08J-511YN	RESISTOR	510Ω,1/10W
R423	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R424	QRSA08J-183YN	RESISTOR,J636MS	18kΩ,1/10W
R425	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R426	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R427	QRSA08J-393YN	RESISTOR,J636MS	39kΩ,1/10W
R428	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R430	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R432	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R434	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R435	QRSA08J-183YN	RESISTOR,J636MS	18kΩ,1/10W
R436	QRSA08J-183YN	RESISTOR,J636MS	18kΩ,1/10W
R437	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R438	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R440	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R441	QRSA08J-104YN	RESISTOR,J636MS A630MS(C)	100kΩ,1/10W
R451	QRSA08J-473YN	RESISTOR,J636MS A630MS(C)	47kΩ,1/10W
R452	QRSA08J-102YN	RESISTOR,J636MS A630MS(C)	1kΩ,1/10W
R453	QRSA08J-473YN	RESISTOR,J636MS A630MS(C)	47kΩ,1/10W
R454	QRSA08J-103YN	RESISTOR,J636MS A630MS(C)	10kΩ,1/10W
R455	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R456	QRSA08J-221YN	RESISTOR	220Ω,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R481	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R482	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R501	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R502	QRSA08J-182YN	RESISTOR	1.8kΩ,1/10W
R503	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R506	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R507	QRSA08J-681YN	RESISTOR	680Ω,1/10W
R516	QRSA08J-563YN	RESISTOR	56kΩ,1/10W
R517	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R518	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R519	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R520	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R521	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R522	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R523	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R524	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R525	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R701	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R702	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R703	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R704	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R705	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R706	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R707	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R708	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R709	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R710	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R711	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R712	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R713	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R714	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R715	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R716	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R717	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R718	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R719	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R720	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R721	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R722	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R723	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R724	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R725	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R726	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R727	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R728	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R729	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R730	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R731	QRSA08J-221YN	RESISTOR,A630MS	220Ω,1/10W
	QRSA08J-222YN	RESISTOR,J636MS A630MS(C)	2.2kΩ,1/10W
R732	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R733	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R734	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R735	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R736	QRSA08J-472YN	RESISTOR,J636MS	4.7kΩ,1/10W
R738	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R739	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R740	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R741	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R742	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R743	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R744	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R745	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R746	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R747	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R748	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R749	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R750	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R751	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R752	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R753	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R754	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R755	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R756	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R757	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R758	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R759	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R761	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R762	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R763	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R765	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R766	QRD161J-474	RESISTOR	470kΩ,1/6W
R767	QRSA08J-334YN	RESISTOR	330kΩ,1/10W
R769	QRD161J-103	RESISTOR	10kΩ,1/6W
R770	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R771	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R772	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R773	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R774	QRSA08J-105YN	RESISTOR	1MΩ,1/10W
R775	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R776	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R777	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R778	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R779	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R780	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R781	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R782	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R785	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R786	QRD161J-750	RESISTOR	75Ω,1/6W
R787	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R788	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R789	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R790	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R791	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R792	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R793	QRSA08J-681YN	RESISTOR	680Ω,1/10W
R794	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R800	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R801	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R802	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R803	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R804	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R805	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R806	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R807	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R808	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R809	QRSA08J-471YN	RESISTOR,J636MS	470Ω,1/10W
R810	QRSA08J-471YN	RESISTOR,J636MS	470Ω,1/10W
R811	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R812	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R814	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R815	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R816	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R819	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R820	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R821	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R824	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R827	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R828	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R829	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R830	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R901	QRD161J-224	RESISTOR	220kΩ,1/6W
R902	QRD161J-224	RESISTOR	220kΩ,1/6W
R903	QRD161J-683	RESISTOR	68kΩ,1/6W
R904	QRD121J-331S	RESISTOR	330Ω,1/2W
R905	QRX014J-R39Z	MF RESISTOR	0.39Ω,1W
R906	QRSA08J-681YN	RESISTOR	680Ω,1/10W
R907	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R908	QRG02DJ-393X	OMF RESISTOR	39kΩ,2W
R909	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R910	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R911	QRSA08J-224YN	RESISTOR	220kΩ,1/10W
R912	QRG02DJ-393X	OMF RESISTOR	39kΩ,2W
R951	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R952	QRV144F-2211AY	CMF RESISTOR	2.21kΩ,1/4W
R953	QRV144F-3481AY	CMF RESISTOR	3.48kΩ,1/4W
R954	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R955	QRG02DJ-222X	OMF RESISTOR	2.2kΩ,2W
△ R957	QRZ0077-470X	FUSIBLE RESISTOR	47Ω,1/4W
R958	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R959	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R960	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R961	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R962	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R963	QRD161J-511	RESISTOR	510Ω,1/6W
R964	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R965	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R966	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R967	QRSA08J-472YN	RESISTOR,J636MS	4.7kΩ,1/10W
R968	QRSA08J-222YN	RESISTOR,J636MS	2.2kΩ,1/10W
R970	QRX014J-8R2Z	MF RESISTOR	8.2Ω,1W
R977	QRG02DJ-182X	OMF RESISTOR	1.8kΩ,2W
R978	QRSA08J-472YN	RESISTOR,A630MS(C) J636MS	4.7kΩ,1/10W
R979	QRSA08J-222YN	RESISTOR,A630MS(C) J636MS	2.2kΩ,1/10W
R1001	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R1002	QRSA08J-153YN	RESISTOR	15kΩ,1/10W
R1003	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R1004	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R1009	QRSA08J-563YN	RESISTOR	56kΩ,1/10W
R1011	QRD161J-0R0	RESISTOR,A630MS	0Ω,1/6W
	QRD161J-332	RESISTOR,J636MS A630MS(C)	3.3kΩ,1/6W
R1012	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R1016	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R1020	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R1025	QRSA08J-184YN	RESISTOR	180kΩ,1/10W
R1026	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R1030	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R1036	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R1038	QRSA08J-182YN	RESISTOR,J636MS A630MS(C)	1.8kΩ,1/10W
R1041	QRSA08J-103YN	RESISTOR,J636MS A630MS(C)	10kΩ,1/10W
R1042	QRSA08J-103YN	RESISTOR,J636MS A630MS(C)	10kΩ,1/10W
R1043	QRSA08J-273YN	RESISTOR,J636MS A630MS(C)	27kΩ,1/10W
R1044	QRSA08J-273YN	RESISTOR,J636MS A630MS(C)	27kΩ,1/10W
R1045	QRSA08J-472YN	RESISTOR,J636MS A630MS(C)	4.7kΩ,1/10W
R1046	QRSA08J-472YN	RESISTOR,J636MS A630MS(C)	4.7kΩ,1/10W
R1101	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R1102	QRSA08J-561YN	RESISTOR	560Ω,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R1103	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R1104	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R1105	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R1106	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R1107	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R1108	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R1109	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R1110	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R1111	QRSA08J-821YN	RESISTOR	820Ω,1/10W
R1112	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R1113	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R1114	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R1301	QRSA08J-392YN	RESISTOR,J636MS	3.9kΩ,1/10W
R1302	QRSA08J-331YN	RESISTOR,J636MS	330Ω,1/10W
R1303	QRSA08J-151YN	RESISTOR,J636MS	150Ω,1/10W
R1304	QRSA08J-0R0Y	RESISTOR,J636MS	0Ω,1/10W
R1306	QRSA08J-152YN	RESISTOR,J636MS	1.5kΩ,1/10W
R1307	QRSA08J-103YN	RESISTOR,J636MS	10kΩ,1/10W
R1308	QRSA08J-103YN	RESISTOR,J636MS	10kΩ,1/10W
R1309	QRSA08J-103YN	RESISTOR,J636MS	10kΩ,1/10W
R1401	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R1402	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R1403	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R1404	QRSA08J-223YN	RESISTOR,J636MS	22kΩ,1/10W
R1405	QRSA08J-392YN	RESISTOR,J636MS	3.9kΩ,1/10W
R1406	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R1407	QRSA08J-122YN	RESISTOR,J636MS	1.2kΩ,1/10W
R1951	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R1952	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R1953	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R1954	QRSA08J-683YN	RESISTOR	68kΩ,1/10W
R1955	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
C3	QCYA1EK-104	CAPACITOR	0.1μF,25V
C5	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C6	QEKJ1CM-106	E CAPACITOR	10μF,16V
C7	QCYA1HK-103	CAPACITOR	0.01μF,50V
C9	QEKJ0JM-476	E CAPACITOR	47μF,6.3V
C10	QCYA1EK-104	CAPACITOR	0.1μF,25V
C11	QEKJ1HM-335	E CAPACITOR	3.3μF,50V
C12	QEKJ1HM-225	E CAPACITOR	2.2μF,50V
C13	QCYA1EK-104	CAPACITOR	0.1μF,25V
C14	QCTA1CH-221	CAPACITOR	220pF,16V
C15	QCTA1CH-680	CAPACITOR	68pF,16V
C16	QEKJ1HM-225	E CAPACITOR	2.2μF,50V
C17	QEKJ1HM-474	E CAPACITOR	0.47μF,50V
C18	QCYA1EK-223	CAPACITOR	0.022μF,25V
C19	QCYA1EK-104	CAPACITOR	0.1μF,25V
C20	QCYA1EK-333	CAPACITOR	0.033μF,25V
C21	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C22	QCYA1EK-104	CAPACITOR	0.1μF,25V
C23	QEKJ1CM-107	E CAPACITOR	100μF,16V
C24	QCYA1EK-104	CAPACITOR	0.1μF,25V
C25	QEKJ1HM-335	E CAPACITOR	3.3μF,50V
C27	QEKJ1CM-106	E CAPACITOR	10μF,16V
C28	QCYA1HK-103	CAPACITOR	0.01μF,50V
C29	QEKJ1CM-106	E CAPACITOR	10μF,16V
C30	QEKJ1HM-224	E CAPACITOR	0.22μF,50V
C31	QCYA1EK-104	CAPACITOR	0.1μF,25V
C32	QEKJ1HM-335	E CAPACITOR	3.3μF,50V
C34	QCYA1EK-473	CAPACITOR	0.047μF,25V
C35	QCYA1CK-224	CAPACITOR	0.22μF,16V
C36	QCTA1CH-390	CAPACITOR	39pF,16V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C37	QCYA1EK-104	CAPACITOR	0.1μF,25V
C38	QCTA1CH-151	CAPACITOR	150pF,16V
C39	QCYA1EK-104	CAPACITOR	0.1μF,25V
C41	QCYA1HK-103	CAPACITOR	0.01μF,50V
C42	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C43	QCYA1EK-104	CAPACITOR	0.1μF,25V
C44	QEKJ1CM-476	E CAPACITOR	47μF,16V
C45	QCYA1EK-104	CAPACITOR	0.1μF,25V
C47	QCTA1CH-100	CAPACITOR	10pF,16V
C48	QCYA1HK-183	CAPACITOR	0.018μF,50V
C49	QCTA1CH-150	CAPACITOR	15pF,16V
C53	QCTA1CH-181	CAPACITOR	180pF,16V
C54	QEKJ1HM-105	E CAPACITOR	1μF,50V
C56	QCTA1CH-6R0	CAPACITOR	6pF,16V
C60	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
C61	QCTA1CH-4R0	CAPACITOR	4pF,16V
C63	QCYA1HK-221	CAPACITOR	220pF,50V
C64	QCTA1CH-101	CAPACITOR	100pF,16V
C69	QCVB1CM-103	CAPACITOR	0.01μF,16V
C101	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C102	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C103	QCYA1EK-104	CAPACITOR	0.1μF,25V
C104	QEKJ0JM-476	E CAPACITOR	47μF,6.3V
C105	QCYA1EK-473	CAPACITOR	0.047μF,25V
C106	QCYA1EK-104	CAPACITOR,A630MS/MS(C)	0.1μF,25V
	QCYA1HK-272	CAPACITOR,J636MS	0.0027μF,50V
C107	QCYA1HK-103	CAPACITOR	0.01μF,50V
C108	QCYA1EK-104	CAPACITOR	0.1μF,25V
C110	QCYA1EK-223	CAPACITOR	0.022μF,25V
C111	QCYA1EK-223	CAPACITOR	0.022μF,25V
C112	QCYA1EK-223	CAPACITOR	0.022μF,25V
C113	QCYA1EK-223	CAPACITOR	0.022μF,25V
C114	QCYA1EK-223	CAPACITOR	0.022μF,25V
C115	QCYA1EK-223	CAPACITOR	0.022μF,25V
C116	QCYA1EK-223	CAPACITOR	0.022μF,25V
C117	QCYA1EK-223	CAPACITOR	0.022μF,25V
C118	QCYA1EK-223	CAPACITOR	0.022μF,25V
C119	QCYA1EK-223	CAPACITOR	0.022μF,25V
C120	QCTA1CH-331	CAPACITOR	330pF,16V
C121	QCYA1EK-104	CAPACITOR,J636MS	0.1μF,25V
C123	QCTA1CH-470	CAPACITOR	47pF,16V
C124	QCTA1CH-470	CAPACITOR	47pF,16V
C125	QCTA1CH-150	CAPACITOR	15pF,16V
C126	QCTA1CH-150	CAPACITOR	15pF,16V
C127	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C130	QCTA1CH-220	CAPACITOR	22pF,16V
C251	QCTA1CH-151	CAPACITOR	150pF,16V
C252	QEKJ1HM-225	E CAPACITOR	2.2μF,50V
C253	QCYA1HK-682	CAPACITOR	0.0068μF,50V
C254	QCYA1HK-682	CAPACITOR	0.0068μF,50V
C255	QCYA1HK-103	CAPACITOR	0.01μF,50V
C256	QEKJ1CM-476	E CAPACITOR	47μF,16V
C257	QCTA1CH-151	CAPACITOR	150pF,16V
C258	QCYA1HK-103	CAPACITOR	0.01μF,50V
C260	QCYA1EK-104	CAPACITOR	0.1μF,25V
C262	QCYA1HK-103	CAPACITOR	0.01μF,50V
C263	QCYA1HK-103	CAPACITOR	0.01μF,50V
C264	QETC1HM-474	E CAPACITOR	0.47μF,50V
C265	QCYA1HK-102	CAPACITOR	0.001μF,50V
C266	QETC1HM-106	E CAPACITOR	10μF,50V
C267	QCYA1HK-103	CAPACITOR	0.01μF,50V
C268	QCTA1CH-681	CAPACITOR	680pF,16V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C269	QCTA1CH-681	CAPACITOR	680pF,16V
C270	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C271	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C290	QCYA1HK-103	CAPACITOR	0.01μF,50V
C291	QCYA1HK-223	CAPACITOR	0.022μF,50V
C292	QEKJ1HM-105	E CAPACITOR	1μF,50V
C296	QCTA1CH-331	CAPACITOR	330pF,16V
C301	QEKJ1CM-106	E CAPACITOR	10μF,16V
C302	QCYA1HK-182	CAPACITOR	0.0018μF,50V
C303	QEKJ1HM-105	E CAPACITOR	1μF,50V
C304	QCYA1EK-333	CAPACITOR	0.033μF,25V
C305	QCYA1EK-333	CAPACITOR	0.033μF,25V
C306	QEKJ1EM-475	E CAPACITOR	4.7μF,25V
C307	QCYA1HK-153	CAPACITOR	0.015μF,50V
C308	QEKJ0JM-226	E CAPACITOR	22μF,6.3V
C309	QCYA1HK-222	CAPACITOR	0.0022μF,50V
C310	QEKJ1EM-475	E CAPACITOR	4.7μF,25V
C313	QFLC1HJ-183Z	F CAPACITOR	0.018μF,50V
C314	QFLC1HJ-153Z	F CAPACITOR	0.015μF,50V
C315	QEKJ1HM-105	E CAPACITOR	1μF,50V
C317	QEKJ1CM-106	E CAPACITOR	10μF,16V
C318	QCYA1HK-332	CAPACITOR,J636MS	0.0033μF,50V
	QCYA1HK-472	CAPACITOR,A630MS/MS(C)	0.0047μF,50V
C319	QCYA1EK-223	CAPACITOR,A630MS/MS(C)	0.022μF,25V
	QCYA1HK-103	CAPACITOR,J636MS	0.01μF,50V
C320	QFLC1HJ-333Z	F CAPACITOR	0.033μF,50V
	QFLC1HJ-823Z	F CAPACITOR	0.082μF,50V
C321	QCYA1HK-331	CAPACITOR	330pF,50V
C322	QEKJ1CM-106	E CAPACITOR,J636MS	10μF,16V
C323	QCYA1HK-103	CAPACITOR,J636MS	0.01μF,50V
C324	QCYA1HK-332	CAPACITOR,J636MS	0.0033μF,50V
C325	QFLC1HJ-333Z	F CAPACITOR	0.033μF,50V
C327	QETC1CM-107	E CAPACITOR	100μF,16V
C328	QCYA1HK-221	CAPACITOR	220pF,50V
C401	QEKJ1CM-106	E CAPACITOR	10μF,16V
C402	QEKJ1CM-106	E CAPACITOR,J636MS	10μF,16V
C403	QEKJ1CM-106	E CAPACITOR	10μF,16V
C404	QEKJ1CM-336	E CAPACITOR	33μF,16V
C405	QCYA1EK-473	CAPACITOR	0.047μF,25V
C406	QEKJ1CM-106	E CAPACITOR	10μF,16V
C407	QEKJ0JM-476	E CAPACITOR	47μF,6.3V
C408	QCYA1HK-153	CAPACITOR	0.015μF,50V
C409	QCYA1HK-103	CAPACITOR	0.01μF,50V
C410	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C415	QCYA1HK-103	CAPACITOR	0.01μF,50V
C416	QCYA1EK-473	CAPACITOR	0.047μF,25V
C417	QETC1HM-224	E CAPACITOR	0.22μF,50V
C418	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C419	QCYA1HK-103	CAPACITOR	0.01μF,50V
C420	QEKJ0JM-476	E CAPACITOR	47μF,6.3V
C421	QCYA1HK-153	CAPACITOR	0.015μF,50V
C422	QEKJ0JM-476	E CAPACITOR	47μF,6.3V
C423	QEKJ1CM-106	E CAPACITOR	10μF,16V
C424	QCYA1EK-473	CAPACITOR	0.047μF,25V
C425	QEKJ1CM-336	E CAPACITOR	33μF,16V
C426	QEKJ1CM-106	E CAPACITOR	10μF,16V
C427	QEKJ1CM-106	E CAPACITOR,J636MS	10μF,16V
C428	QEKJ1CM-106	E CAPACITOR	10μF,16V
C429	QEKJ1CM-106	E CAPACITOR	10μF,16V
C431	QEKJ1CM-476	E CAPACITOR	47μF,16V
C432	QEKJ1HM-105	E CAPACITOR	1μF,50V
C433	QEKJ1CM-106	E CAPACITOR	10μF,16V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C434	QEKJ1CM-226	E CAPACITOR	22μF,1(
C435	QEKJ1CM-226	E CAPACITOR	22μF,1(
C436	QEKJ0JM-476	E CAPACITOR	47μF,6.3\
C437	QEKJ1CM-106	E CAPACITOR	10μF,16V
C438	QEKJ1HM-105	E CAPACITOR,J636MS	1μF,50V
C439	QEKJ1HM-105	E CAPACITOR,J636MS	1μF,50V
C440	QEKJ1CM-336	E CAPACITOR,J636MS	33μF,16V
C441	QEKJ1CM-336	E CAPACITOR,J636MS	33μF,16V
C443	QEKJ1HM-105	E CAPACITOR	1μF,50V
C447	QCBB1HK-102	CAPACITOR	0.001μF,50V
C448	QCTA1CH-101	CAPACITOR	100pF,16V
C449	QCTA1CH-101	CAPACITOR	100pF,16V
C450	QCTA1CH-101	CAPACITOR	100pF,16V
C451	QCTA1CH-101	CAPACITOR	100pF,16V
C481	QEKJ1EM-475	E CAPACITOR	4.7μF,25V
C501	QCYA1HK-103	CAPACITOR	0.01μF,50V
C502	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C503	QCYA1HK-103	CAPACITOR	0.01μF,50V
C504	QCFA1EZ-104	CAPACITOR	0.1μF,2(
C505	QEKJ0JM-476	E CAPACITOR	47μF,6.\
C506	QCYA1EK-104	CAPACITOR	0.1μF,25V
C507	QCYA1EK-563	CAPACITOR	0.056μF,25V
C508	QCYA1HK-221	CAPACITOR	220pF,50V
C509	QCYA1HK-102	CAPACITOR	0.001μF,50V
C510	QCYA1HK-103	CAPACITOR	0.01μF,50V
C511	QCYA1HK-102	CAPACITOR	0.001μF,50V
C512	QCYA1HK-103	CAPACITOR	0.01μF,50V
C513	QCYA1HK-271	CAPACITOR	270pF,50V
C517	QCYA1HK-102	CAPACITOR	0.001μF,50V
C518	QCYA1HK-103	CAPACITOR	0.01μF,5(
C519	QCYA1EK-223	CAPACITOR	0.022μF,25V
C521	QCYA1HK-561	CAPACITOR	560pF,50V
C701	QAT3120-450Z	TRIM CAPACITOR,TIMER CLOCK	
C702	QCTA1CH-180	CAPACITOR	18pF,16V
C703	QCYA1HK-103	CAPACITOR	0.01μF,50V
C704	QEKJ1CM-106	E CAPACITOR	10μF,16V
C709	QCYA1EK-104	CAPACITOR	0.1μF,25V
C712	QCYA1HK-102	CAPACITOR	0.001μF,50V
C715	QCYA1HK-103	CAPACITOR	0.01μF,50V
C717	QEKJ1CM-336	E CAPACITOR	33μF,1(
C719	PU60676-223	E CAPACITOR,J636MS	0.022μF,5.5V
	QETN0JM-228ZS	E CAPACITOR,A630MS/MS(C)	2200μF,6.3V
C730	QEKJ1CM-106	E CAPACITOR	10μF,16V
C731	QCYA1HK-103	CAPACITOR	0.01μF,50V
C736	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C740	QCVB1CM-103	CAPACITOR	0.01μF,16V
C751	QCFA1EZ-104	CAPACITOR	0.1μF,25V
△ C901	QFZ9022-333	F CAPACITOR	0.033μF
△ C903	QFZ9022-333	F CAPACITOR	0.033μF
C906	QETC1HM-225	E CAPACITOR	2.2μF,50V
C907	QCZ0302-330Z	CAPACITOR	33pF
C908	QFV21HJ-104AZ	F CAPACITOR	0.1μF,50V
C910	PECA0738-686	E CAPACITOR	
△ C911	QCZ9026-222	CAPACITOR	0.0022μF
C915	QFLC1HJ-183Z	F CAPACITOR	0.018μF,50V
C916	QCBB1HJ-271	CAPACITOR	270pF,50V
C917	QCZ0212-472	CAPACITOR	0.0047μF,1(
C951	QEMR1AM-107	E CAPACITOR	100μF,1(
C953	QEM91AM-687	E CAPACITOR	680μF,10V
C954	QEM91CM-827	E CAPACITOR	820μF,16V
C955	QEMR1EM-187	E CAPACITOR,J636MS	180μF,25V
C959	QETC1JM-226	E CAPACITOR	22μF,63V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C960	QETC1HM-226	E CAPACITOR	22μF,50V
C961	QFLC1HJ-103Z	F CAPACITOR	0.01μF,50V
C962	QCYA1HK-102	CAPACITOR	0.001μF,50V
C963	QETC1AM-107	E CAPACITOR	100μF,10V
C964	QEKJ1CM-226	E CAPACITOR	22μF,16V
C965	QETC1AM-107	E CAPACITOR	100μF,10V
C966	QETC1HM-106	E CAPACITOR	10μF,50V
C969	QEKJ1HM-474	E CAPACITOR	0.47μF,50V
C971	QETC1AM-227	E CAPACITOR	220μF,10V
C972	QETC1CM-337	E CAPACITOR	330μF,16V
C1002	QCYA1HK-102	CAPACITOR	0.001μF,50V
C1004	QCYA1HK-102	CAPACITOR	0.001μF,50V
C1007	QCYA1EK-473	CAPACITOR,J636MS A630MS(C)	0.047μF,25V
C1010	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
C1057	QETC1HM-475	E CAPACITOR	4.7μF,50V
C1059	QETC1CM-476	E CAPACITOR	47μF,16V
C1101	QCYA1HK-102	CAPACITOR	0.001μF,50V
C1102	QCYA1HK-102	CAPACITOR	0.001μF,50V
C1103	QCYA1EK-563	CAPACITOR	0.056μF,25V
C1104	QCTA1CH-101	CAPACITOR	100pF,16V
C1105	QCYA1EK-223	CAPACITOR,J636MS	0.022μF,25V
C1106	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1107	QCYA1HK-102	CAPACITOR	0.001μF,50V
C1108	QCTA1CH-470	CAPACITOR	47pF,16V
C1109	QCYA1HK-102	CAPACITOR	0.001μF,50V
C1110	QCYA1HK-222	CAPACITOR	0.0022μF,50V
C1111	QCYA1EK-104	CAPACITOR	0.1μF,25V
C1112	QEKJ1CM-106	E CAPACITOR	10μF,16V
C1113	QEKJ1CM-106	E CAPACITOR	10μF,16V
C1114	QEKJ1CM-106	E CAPACITOR	10μF,16V
C1115	QEKJ0JM-107	E CAPACITOR	100μF,6.3V
C1116	QEKJ1HM-105	E CAPACITOR	1μF,50V
C1301	QEKJ1HM-105	E CAPACITOR,J636MS	1μF,50V
C1302	QCTA1CH-820	CAPACITOR,J636MS	82pF,16V
C1303	QEKJ1HM-105	E CAPACITOR,J636MS	1μF,50V
C1304	QCTA1CH-560	CAPACITOR,J636MS	56pF,16V
C1305	QEKJ0JM-476	E CAPACITOR,J636MS	47μF,6.3V
C1306	QCYA1HK-103	CAPACITOR,J636MS	0.01μF,50V
C1307	QCTA1CH-150	CAPACITOR,J636MS	15pF,16V
C1308	QCTA1CH-330	CAPACITOR,J636MS	33pF,16V
C1309	QCTA1CH-330	CAPACITOR,J636MS	33pF,16V
C1314	QCTA1CH-220	CAPACITOR,J636MS	22pF,16V
C1315	QCTA1CH-131	CAPACITOR,J636MS	130pF,16V
C1318	QCTA1CH-330	CAPACITOR,J636MS	33pF,16V
C1401	QETC1HM-106	E CAPACITOR	10μF,50V
C1402	QETC1HM-106	E CAPACITOR,J636MS	10μF,50V
C1403	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1404	QETC1HM-106	E CAPACITOR	10μF,50V
C1951	QENC1EM-475	NP E CAPACITOR	4.7μF,25V
C1952	QETC1HM-475	E CAPACITOR	4.7μF,50V
C1953	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1954	QETC1HM-106	E CAPACITOR	10μF,50V
L1	PELN0530-101JZ	COIL	100μH
L2	PELN1203	COIL	
L3	PU59152-5R6J	COIL	5.6μH
L4	PELN0530-101JZ	COIL	100μH
L5	PU59152-820J	COIL	82μH
L6	PELN0530-101JZ	COIL	100μH
L7	PU59152-221J	COIL	220μH
L9	PU59152-101J	COIL	100μH
L10	PU59152-221J	COIL	220μH
L11	PELN0530-331JZ	COIL	330μH

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
L101	PELN0530-101JZ	COIL	100μH
L103	PU59152-221J	COIL	220μH
L253	PELN0530-101JZ	COIL	100μH
L254	PU59152-270J	COIL	27μH
L256	PU59152-6R8J	COIL	6.8μH
L301	PU58308-123J	COIL	12mH
L501	PELN0530-100JZ	COIL	10μH
L502	PU59152-101J	COIL	100μH
L703	PU48530-100K	COIL	10μH
L951	PELN0687	COIL	
L953	PELN0687	COIL	
L1002	PU59152-R22J	COIL	0.22μH
L1003	PU59152-1R0J	COIL	1μH
L1081	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
L1101	PU59152-270J	COIL	27μH
L1301	PELN0530-101JZ	COIL,J636MS	100μH
L1302	PU59152-220J	COIL,J636MS	22μH
L1303	PU59152-220J	COIL,J636MS	22μH
L1304	PU59152-2R2J	COIL,J636MS	2.2μH
L1305	PU59152-330J	COIL,J636MS	33μH
L1402	QRD161J-221	RESISTOR	220Ω,1/6W
L1403	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
△ CF701	PEVB0594-Z	RESONATOR	
△ X1	PEVB0658	CRYSTAL RESONATOR	
△ X701	PEVB0422	CRYSTAL RESONATOR	
K901	PELN0662-Z	FERRITE BEAD	
△ PC901	PS2561L-1(WL)	PH COUPLER	
PS701	PU61433	REEL SENSOR	
PS702	PU61433	REEL SENSOR	
△ T301	PELN0832	OSC TRANSFORMER,A630MS/MS(C)	
△	PELN0860	OSC TRANSFORMER,J636MS	
△ T302	PELN0861	OSC TRANSFORMER,J636MS	
△ T901	PELN1173	SW TRANS	
BK1	PQ21944-1-2	TRANS BKT	
ET2	PQ46601	EARTH PLATE	
HD1	PEME0978	HOLDER,PDC	
△ HS1	PQ45788-1-1	HEAT SINK,Q901	
△ FC901	PEMC0965-Z	FUSE CLIP,F901	
△ FC902	PEMC0965-Z	FUSE CLIP,F901	
△ LF901	PELN1204	LINE FILTER	
△ LF902	PELN0876	LINE FILTER	
OT2	SDST3006Z	SCREW,Q901	
OT3	PQ46408-1-2	SENSOR CAP,X2 Q704 Q705	
SD1	PQ35384	SHIELD CASE	
SD2	PQ46515	SHIELD PLATE	
FL254	PELN1229	EQUALIZER	
△ TU1001	PERF0200	TUNER UNIT	
CN101	PEMC1163-009	CONNECTOR,(1-9)UPPER DRUM	
CN301	PU60727-7	CONNECTOR,(1-7)A/C HEAD	
CN302	PU60727-2	CONNECTOR,(1-2)FE HEAD	
CN701	PEMC1077	CONNECTOR,(1-8)CAP MDA	
CN702	PU61434-1-1	CONNECTOR,(1-5)ROTARY ENCODER	
CN703	PU60910-2	CONNECTOR,(1-2)LOADING MOTOR	
CN705	PU59555-8	CONNECTOR,(1-8)JOG/SHUTTLE J636MS	
CN751	PEMC0714-008	CONNECTOR,(1-8)RDC/ATS +	
CN802	PEMC1101-013	CONNECTOR,(1-13)DISPLAY	
△ CN901	PU60250-2	CONNECTOR,(1-2)AC IN	
CN1102	PEMC1101-004	CONNECTOR,(1-4)DRUM MOTOR	
CN1401	PEMC1168-017	CONNECTOR,(1-17)TERMINAL	
CN1402	PEMC1168-018	CONNECTOR,(1-18)TERMINAL	
CN1403	PEMC1101-007	CONNECTOR,(1-7)SW/JACK J636MS	
△ CP701	ICP-N25	CIRCUIT PROTECTOR	

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
△ CP901	ICP-N20	CIRCUIT PROTECTOR	
△ CP902	ICP-N25	CIRCUIT PROTECTOR	
△ CP1101	ICP-N15	CIRCUIT PROTECTOR	
△ F901	QMF51E2-1R25J1	FUSE	T1.2A

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TERMINAL BOARD ASSEMBLY <06>

PW1	PB10994G-01	TERMINAL BOARD ASSEMBLY,J636MS	
	PB10994H-01	TERMINAL BOARD ASSEMBLY,A630MS/MS(C)	
TB1	PQ35509Q-2	TERMINAL BOARD ASSY,A630MS/MS(C)	
	PQ35509R-2	TERMINAL BOARD ASSY,J636MS	
OT1	SDSF3008Z	SCREW,X7 TERMINAL BOARD	
IC201	BA7630S	IC	
IC601	BA3129	IC	
Q201	2SA1576(QRS)	TRANSISTOR	
	or 2SB1218A(QRS)	TRANSISTOR	
Q202	2SA1576(QRS)	TRANSISTOR	
	or 2SB1218A(QRS)	TRANSISTOR	
Q204	2SA1576(QRS)	TRANSISTOR	
	or 2SB1218A(QRS)	TRANSISTOR	
Q205	2SA1576(QRS)	TRANSISTOR	
	or 2SB1218A(QRS)	TRANSISTOR	
Q206	2SC4081(QRS)	TRANSISTOR	
	or 2SD1819A(QRS)	TRANSISTOR	
Q208	2SD1450S,T	TRANSISTOR	
	or 2SD1302(ST)	TRANSISTOR	
Q601	DTC144WU	TRANSISTOR	
	or UN521E	TRANSISTOR	
Q1411	2SA1576(QRS)	TRANSISTOR	
	or 2SB1218A(QRS)	TRANSISTOR	
Q1412	2SA933S(QRS)	TRANSISTOR	
	or 2SA1267(YG)-TJK	TRANSISTOR	
D202	MTZ12AT-77	ZENER DIODE	
R201	QRD123J-331SX	RESISTOR	330Ω,1/2W
R202	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R203	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
R204	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R205	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R209	QRSA08J-335YN	RESISTOR	3.3MΩ,1/10W
R210	QRD123J-331SX	RESISTOR	330Ω,1/2W
R211	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R212	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R213	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R214	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R215	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R216	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R217	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R218	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R221	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R222	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R225	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R226	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R227	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R228	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R601	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R602	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R603	QRSA08J-333YN	RESISTOR	33kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R604	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R605	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R606	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R607	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R608	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R609	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R610	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R611	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R612	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R613	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R614	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R615	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R620	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R1411	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R1412	QRD123J-331SX	RESISTOR	330Ω,1/2W
R1413	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R1414	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R1415	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R1416	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
C201	QETA0JM-477	E CAPACITOR	470μF,6.3V
C203	QCYA1HK-103	CAPACITOR	0.01μF,50V
C204	QETA1CM-337	E CAPACITOR	330μF,16V
C205	QEKJ0JM-476	E CAPACITOR	47μF,6.3V
C206	QCYA1EK-104	CAPACITOR	0.1μF,25V
C207	QEKJ1HM-474	E CAPACITOR	0.47μF,50V
C208	QEP61HM-474	NP E CAPACITOR	0.47μF,50V
C209	QEP61HM-105	NP E CAPACITOR	1μF,50V
C210	QEKJ1HM-105	E CAPACITOR	1μF,50V
C211	QETA0JM-477	E CAPACITOR	470μF,6.3V
C213	QCTA1CH-330	CAPACITOR	33pF,16V
C221	QEKJ1CM-476	E CAPACITOR	47μF,16V
C601	QEKJ1CM-106	E CAPACITOR	10μF,16V
C602	QEKJ1CM-476	E CAPACITOR	47μF,16V
C603	QEKJ1CM-106	E CAPACITOR	10μF,16V
C604	QEKJ1CM-476	E CAPACITOR	47μF,16V
C1411	QCYA1HK-681	CAPACITOR	680pF,50V
C1412	QCYA1HK-681	CAPACITOR	680pF,50V
C1413	QCYA1HK-102	CAPACITOR	0.001μF,50V
C1414	QCYA1HK-102	CAPACITOR	0.001μF,50V
C1417	QCYA1HK-681	CAPACITOR	680pF,50V
C1418	QCYA1HK-681	CAPACITOR	680pF,50V
C1424	QCYA1HK-681	CAPACITOR	680pF,50V
C1425	QCYA1HK-681	CAPACITOR	680pF,50V
C1426	QCTA1CH-330	CAPACITOR	33pF,16V
L204	PU59152-1R0J	COIL	1μH
L1411	PU59152-2R2J	COIL	2.2μH
L1412	PU59152-2R2J	COIL	2.2μH
L1413	PU59152-4R7J	COIL	4.7μH
L1414	PU59152-4R7J	COIL	4.7μH
L1415	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
L1416	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
L1417	PU59152-R33J	COIL	0.33μH
L1418	PU59152-4R7J	COIL	4.7μH
L1419	PU59152-4R7J	COIL	4.7μH
L1422	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
L1423	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
L1424	PU59152-1R0J	COIL	1μH
L1426	PU59152-4R7J	COIL	4.7μH
L1427	PU59152-4R7J	COIL	4.7μH
L1428	PU59152-R47J	COIL	0.47μH
L1429	PU59152-1R0J	COIL	1μH
S1411	PESW0677	SLIDE SWITCH	

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
W201	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W202	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W203	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W204	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W205	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W206	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W207	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
J1411	PEMC1019	RGB21PIN SOCKET,AV1	
J1412	PEMC1019	RGB21PIN SOCKET,AV2	
J1413	PEMC1009-02	PIN JACK,A OUT(R)	
J1414	PEMC1009-03	PIN JACK,A OUT(L)	
J1415	PU60659	MINI JACK,PAUSE/RAE J636MS	
ET1	PQ21987	EARTH PLATE,TERMINAL	
CN1411	PEMC1167-117	CONNECTOR,(1-17)MAIN	
CN1412	PEMC1167-118	CONNECTOR,(1-18)MAIN	

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IF BOARD ASSEMBLY <07>

PW1	PB10977B	IF BOARD ASSEMBLY,J636MS A630MS(C)	
	PB10977C	IF BOARD ASSEMBLY,A630MS	
IC2101	TA8865BN	IC	
Q2101	FMG8	TRANSISTOR	
Q2102	2SC3936(BC)	TRANSISTOR	
Q2103	2SC2636S,T	TRANSISTOR	
Q2104	2SC2636S,T	TRANSISTOR	
Q2105	DTC114EU	TRANSISTOR,A630MS	
Q2106	FMA2	TRANSISTOR	
Q2107	FMA2	TRANSISTOR	
Q2108	FMG2	TRANSISTOR	
Q2109	DTC144EU	TRANSISTOR	
Q2110	DTC144EU	TRANSISTOR	
Q2111	2SB1218A(RS)	TRANSISTOR	
Q2116	FMG8	TRANSISTOR	
Q2117	2SC3936(BC)	TRANSISTOR	
D2101	DA204U	DIODE	
D2102	1SS135	DIODE	
D2103	1SS135	DIODE	
R2101	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R2102	QRSA08J-105YN	RESISTOR	1MΩ,1/10W
R2103	QRSA08J-181YN	RESISTOR	180Ω,1/10W
R2104	QRSA08J-182YN	RESISTOR	1.8kΩ,1/10W
R2105	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R2106	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R2107	QRSA08J-470YN	RESISTOR	47Ω,1/10W
R2108	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R2109	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R2110	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R2111	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R2112	QRSA08J-470YN	RESISTOR	47Ω,1/10W
R2113	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R2114	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R2115	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R2116	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R2118	QRSA08J-470YN	RESISTOR	47Ω,1/10W
R2121	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R2122	QRSA08J-433YN	RESISTOR	43kΩ,1/10W
R2123	QRSA08J-563YN	RESISTOR	56kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R2124	QRSA08J-562YN	RESISTOR,A630MS	5.6kΩ,1/10W
	QRSA08J-822YN	RESISTOR,J636MS A630MS(C)	8.2kΩ,1/10W
R2125	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R2126	QRSA08J-392YN	RESISTOR,A630MS	3.9kΩ,1/10W
R2127	QRSA08J-105YN	RESISTOR,A630MS	1MΩ,1/10W
R2128	QRSA08J-0R0Y	RESISTOR,J636MS A630MS(C)	0Ω,1/10W
	QRSA08J-152YN	RESISTOR,A630MS	1.5kΩ,1/10W
R2129	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R2130	QRSA08J-684YN	RESISTOR	680kΩ,1/10W
R2131	QRSA08J-362YN	RESISTOR	3.6kΩ,1/10W
R2132	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R2133	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R2134	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R2135	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R2136	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R2137	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R2138	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R2139	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R2140	QRSA08J-510YN	RESISTOR	51Ω,1/10W
R2141	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R2142	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R2143	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R2144	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R2146	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R2147	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R2148	QRSA08J-512YN	RESISTOR	5.1kΩ,1/10W
R2150	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R2151	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R2152	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R2153	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R2154	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R2161	QRSA08J-821YN	RESISTOR	820Ω,1/10W
R2162	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R2163	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R2164	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R2173	QRSA08J-473YN	RESISTOR,A630MS	47kΩ,1/10W
R2174	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R2176	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R2177	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R2178	QRSA08J-360YN	RESISTOR	36Ω,1/10W
R2179	QRSA08J-105YN	RESISTOR	1MΩ,1/10W
R2180	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R2185	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R2186	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
VR2101	QVPA603-103	V RESISTOR,RF AGC	
C2102	QCTA1CH-4R0	CAPACITOR	4pF,16V
C2103	QCTA1CH-3R0	CAPACITOR	3pF,16V
C2104	QCTA1CH-3R0	CAPACITOR	3pF,16V
C2105	QCYA1HK-222	CAPACITOR	0.0022μF,50V
C2106	QCYA1HK-222	CAPACITOR	0.0022μF,50V
C2107	QCYA1HK-222	CAPACITOR	0.0022μF,50V
C2108	QCYA1HK-222	CAPACITOR	0.0022μF,50V
C2111	QCYA1HK-103	CAPACITOR	0.01μF,50V
C2112	QEKJ1HM-224	E CAPACITOR	0.22μF,50V
C2113	QCYA1HK-103	CAPACITOR	0.01μF,50V
C2115	QCYA1EK-473	CAPACITOR,A630MS	0.047μF,25V
C2116	QEKJ1CM-106	E CAPACITOR	10μF,16V
C2117	QEKJ1CM-476	E CAPACITOR	47μF,16V
C2118	QCYA1HK-103	CAPACITOR	0.01μF,50V
C2119	QCYA1HK-102	CAPACITOR	0.001μF,50V
C2120	QCYA1HK-103	CAPACITOR	0.01μF,50V
C2121	QEKJ1HM-474	E CAPACITOR	0.47μF,50V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C2122	QEKJ1HM-224	E CAPACITOR	0.22μF,50V
C2123	QCYA1HK-273	CAPACITOR	0.027μF,50V
C2124	QEKJ1HM-335	E CAPACITOR	3.3μF,50V
C2126	QCYA1HK-152	CAPACITOR	0.0015μF,50V
C2127	QEKJ1HM-104	E CAPACITOR	0.1μF,50V
C2128	QCYA1HK-103	CAPACITOR	0.01μF,50V
C2129	QEKJ1HM-105	E CAPACITOR	1μF,50V
C2130	QCTA1CH-560	CAPACITOR	56pF,16V
C2131	QCTA1CH-6R0	CAPACITOR	6pF,16V
C2133	QCYA1HK-102	CAPACITOR	0.001μF,50V
C2134	QEKJ1HM-474	E CAPACITOR	0.47μF,50V
C2135	QCYA1HK-103	CAPACITOR	0.01μF,50V
C2137	QCTA1CH-220	CAPACITOR	22pF,16V
C2138	QCTA1CH-680	CAPACITOR	68pF,16V
C2139	QEKJ1HM-474	E CAPACITOR	0.47μF,50V
C2142	QCYA1HK-103	CAPACITOR	0.01μF,50V
C2151	QCTA1CH-200	CAPACITOR	20pF,16V
C2166	QCTA1CH-6R0	CAPACITOR	6pF,16V
C2167	QCTA1CH-6R0	CAPACITOR	6pF,16V
C2168	QCTA1CH-4R0	CAPACITOR	4pF,16V
C2173	QCYA1HK-103	CAPACITOR	0.01μF,50V
L2101	PU59152-1R0K	COIL	1μH
L2102	PU60025-3R9	COIL	3.9μH
L2103	PU60025-1R8	COIL	1.8μH
L2104	PU59152-1R0K	COIL	1μH
L2105	PU60025-1R5	COIL	1.5μH
L2106	PU60025-1R8	COIL	1.8μH
L2107	PU60025-3R9	COIL	3.9μH
L2114	PU59152-330J	COIL	33μH
L2115	PU59152-120J	COIL	12μH
CF2101	PU49295-2	N FILTER	
CF2102	PU32990-2	CERAMIC FILTER	
△ X2101	PEVB0534	RESONATOR	
TC2101	QAT3120-100Z	TRIM CAPACITOR	
TC2102	QAT3120-100Z	TRIM CAPACITOR	
T2101	PELN0932-02	LC TRAP	
T2102	PELN0895-03	IF.TRANSFORMER	
T2103	PELN0896-02	IF.TRANSFORMER	
T2104	PELN0897-02	IF.TRANSFORMER	
T2106	PELN1014	LC TRAP	
W2101	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W2102	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W2103	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W2104	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W2105	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W2106	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W2107	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W2108	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W2109	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W2110	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W2111	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
SD1	PQ35320	SHIELD CASE(IF)	
SD2	PQ35321	SHIELD PLATE	
SF2101	PEVB0532	SAW FILTER	
SF2102	PEVB0533	SAW FILTER	
SF2103	PEVB0485	SAW FILTER	
CN2101	PEMC0712-114	PIN HEADER,(1-14)MAIN	

#△ REF No.	PART No.	PART NAME, DESCRIPTION	

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AUDIO/CONTROL HEAD BOARD ASSY <12>

PW1	PB40068A-01	A/CTL HEAD BOARD ASSEMBLY
CN1	PU60910-107	CONNECTOR,(1-7) MAIN

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DEMOD BOARD ASSEMBLY <14>

PW1	PB10974D	DEMOD BOARD ASSEMBLY,J636MS A630MS(C)	
	PB10974F	DEMOD BOARD ASSEMBLY,A630MS	
IC1501	UPC1391H	IC,J636MS A630MS(C)	
IC1502	TDA8415	IC,J636MS A630MS(C)	
	or TDA8416	IC,J636MS A630MS(C)	
IC1503	SAA7283ZP	IC	
Q1501	2SC3354	TRANSISTOR	
D1502	1SV214	DIODE	
D1503	1N4148M	DIODE	
	or 1SS133	DIODE	
R1501	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R1502	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R1503	QRSA08J-681YN	RESISTOR	680Ω,1/10W
R1504	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R1505	QRSA08J-470YN	RESISTOR	47Ω,1/10W
R1514	QRSA08J-391YN	RESISTOR,J636MS A630MS(C)	390Ω,1/10W
R1515	QRSA08J-271YN	RESISTOR,J636MS A630MS(C)	270Ω,1/10W
R1516	QRSA08J-182YN	RESISTOR,J636MS A630MS(C)	1.8kΩ,1/10W
R1517	QRSA08J-222YN	RESISTOR,J636MS A630MS(C)	2.2kΩ,1/10W
R1518	QRSA08J-561YN	RESISTOR,J636MS A630MS(C)	560Ω,1/10W
R1519	QRSA08J-471YN	RESISTOR,J636MS A630MS(C)	470Ω,1/10W
R1520	QRSA08J-103YN	RESISTOR,J636MS A630MS(C)	10kΩ,1/10W
R1521	QRSA08J-102YN	RESISTOR,J636MS A630MS(C)	1kΩ,1/10W
R1522	QRSA08J-103YN	RESISTOR,J636MS A630MS(C)	10kΩ,1/10W
R1523	QRSA08J-102YN	RESISTOR,J636MS A630MS(C)	1kΩ,1/10W
R1524	QRSA08J-182YN	RESISTOR,J636MS A630MS(C)	1.8kΩ,1/10W
R1525	QRSA08J-222YN	RESISTOR,J636MS A630MS(C)	2.2kΩ,1/10W
R1527	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R1528	QRSA08J-182YN	RESISTOR	1.8kΩ,1/10W
R1529	QRSA08J-152YN	RESISTOR,A630MS	1.5kΩ,1/10W
	QRSA08J-222YN	RESISTOR,J636MS A630MS(C)	2.2kΩ,1/10W
R1530	QRSA08J-272YN	RESISTOR	2.7kΩ,1/10W
R1531	QRSA08J-152YN	RESISTOR,A630MS	1.5kΩ,1/10W
	QRSA08J-222YN	RESISTOR,J636MS A630MS(C)	2.2kΩ,1/10W
R1532	QRSA08J-272YN	RESISTOR	2.7kΩ,1/10W
R1533	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R1534	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R1535	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R1536	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R1537	QRSA08J-105YN	RESISTOR	1MΩ,1/10W
R1538	QRSA08J-684YN	RESISTOR	680kΩ,1/10W
R1540	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R1541	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R1542	QRSA08J-470YN	RESISTOR	47Ω,1/10W
R1543	QRD161J-220	RESISTOR	22Ω,1/6W
VR1501	QVZ3521-103	V RESISTOR,SEPARATION	
C1501	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1502	QCYA1HK-103	CAPACITOR	0.01μF,50V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C1503	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1508	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1510	QCTA1CH-220	CAPACITOR,J636MS A630MS(C)	22pF,16V
C1511	QCYA1HK-103	CAPACITOR,J636MS A630MS(C)	0.01μF,50V
C1512	QCYA1EK-473	CAPACITOR,J636MS A630MS(C)	0.047μF,25V
C1513	QCYA1HK-103	CAPACITOR,J636MS A630MS(C)	0.01μF,50V
C1514	QCYA1HK-103	CAPACITOR,J636MS A630MS(C)	0.01μF,50V
C1515	QEKJ1HM-225	E CAPACITOR,J636MS A630MS(C)	2.2μF,50V
C1516	QEKJ1HM-225	E CAPACITOR,J636MS A630MS(C)	2.2μF,50V
C1517	QEKJ1HM-225	E CAPACITOR,J636MS A630MS(C)	2.2μF,50V
C1518	QCTA1CH-330	CAPACITOR,A630MS	33pF,16V
C1519	QCTA1CH-330	CAPACITOR,A630MS	33pF,16V
C1520	QCYA1HK-682	CAPACITOR	0.0068μF,50V
C1521	QCYA1HK-682	CAPACITOR	0.0068μF,50V
C1524	QEKJ1CM-226	E CAPACITOR	22μF,16V
C1525	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1526	QEKJ1CM-106	E CAPACITOR	10μF,16V
C1527	QCYA1EK-473	CAPACITOR	0.047μF,25V
C1528	QEKJ1HM-224	E CAPACITOR	0.22μF,50V
C1529	QEKJ1CM-106	E CAPACITOR	10μF,16V
C1530	QEKJ1HM-104	E CAPACITOR	0.1μF,50V
C1531	QEKJ1CM-106	E CAPACITOR	10μF,16V
C1532	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1533	QEKJ1HM-224	E CAPACITOR	0.22μF,50V
C1534	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1535	QEKJ1CM-336	E CAPACITOR	33μF,16V
C1537	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1538	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1539	QEKJ1CM-106	E CAPACITOR	10μF,16V
C1540	QCTA1CH-100	CAPACITOR	10pF,16V
C1541	QEKJ1CM-106	E CAPACITOR	10μF,16V
C1542	QCTA1CH-221	CAPACITOR	220pF,16V
C1543	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1544	QEKJ1CM-106	E CAPACITOR	10μF,16V
C1545	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1546	QEKJ1HM-105	E CAPACITOR	1μF,50V
C1547	QEKJ1CM-336	E CAPACITOR	33μF,16V
C1548	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1549	QCYA1EK-223	CAPACITOR	0.022μF,25V
C1550	QEKJ1HM-334	E CAPACITOR	0.33μF,50V
C1551	QCTA1CH-101	CAPACITOR	100pF,16V
C1552	QCTA1CH-101	CAPACITOR	100pF,16V
C1553	QCYA1HK-103	CAPACITOR	0.01μF,50V
C1554	QCYA1EK-473	CAPACITOR	0.047μF,25V
C1556	QCTA1CH-101	CAPACITOR	100pF,16V
C1557	QCTA1CH-101	CAPACITOR	100pF,16V
L1501	PU59152-4R7J	COIL	4.7μH
L1502	PU59152-1R0J	COIL	1μH
L1504	PU59152-1R0J	COIL	1μH
L1505	PU59152-120J	COIL	12μH
CF1503	PEVB0677	C DISCRIMINATER,J636MS A630MS(C)	
CF1504	PU52775-2	CERAMIC FILTER,J636MS A630MS(C)	
LC1501	PU59736-102	N FILTER,J636MS A630MS(C)	
LC1502	PU59736-102	N FILTER	
△ X1501	PEVB0479	CRYSTAL RESONATOR,J636MS A630MS(C)	
△ X1502	PEVB0660	CRYSTAL RESONATOR	
W1503	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W1506	QRSA08J-0R0Y	RESISTOR,J636MS A630MS(C)	0Ω,1/10W
W1507	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W1508	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
W1509	QRSA08J-0R0Y	RESISTOR,A630MS/MS(C)	0Ω,1/10W
W1510	QRSA08J-0R0Y	RESISTOR,A630MS/MS(C)	0Ω,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
SD1	PQ35058-1-3	SHIELD COVER,X2	
SD2	PQ35057	SHIELD FRAME	
CN1501	PEMC0712-108	PIN HEADER,(2-9)MAIN	
CN1502	PEMC0712-105	PIN HEADER,(2-6)MAIN	

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SW/DISPLAY BOARD ASSEMBLY <28>

PW1	PB10973L1	SW/DISPLAY BOARD ASSEMBLY, J636MS	
	PB10985N1	DISPLAY BOARD ASSEMBLY,A630MS	
	PB10985P1	DISPLAY BOARD ASSEMBLY,A630MS(C)	
IC1201	UPD16311GC(P)	IC	
	or UPD16311GC(K)	IC	
	or UPD16311GC(E)	IC	
IC1202	SPS-442-1	IR DETECT UNIT	
	or HC-377J	IR DETECT UNIT	
	or GP1U581X	IR DETECT UNIT	
D1201	1N4148M	DIODE	
	or 1SS132Y	DIODE	
D1202	1N4148M	DIODE	
	or 1SS132Y	DIODE	
D1203	1N4148M	DIODE	
	or 1SS132Y	DIODE	
D1204	1N4148M	DIODE,J636MS	
	or 1SS132Y	DIODE,J636MS	
D1205	1N4148M	DIODE,A630MS/MS(C)	
	or 1SS132Y	DIODE,A630MS/MS(C)	
D1210	RD3.3ES-T1B2	ZENER DIODE	
D1212	SLR-342MC3F	LE DIODE,JUST REC J636MS	
D1220	1N4148M	DIODE,J636MS	
	or 1SS132Y	DIODE,J636MS	
D1221	1N4148M	DIODE,A630MS	
	or 1SS132Y	DIODE,A630MS	
R1201	QRD161J-333	RESISTOR	33kΩ,1/6W
R1202	QRD161J-333	RESISTOR	33kΩ,1/6W
R1203	QRD161J-333	RESISTOR	33kΩ,1/6W
R1204	QRD161J-333	RESISTOR	33kΩ,1/6W
R1205	QRD161J-472	RESISTOR	4.7kΩ,1/6W
R1206	QRD161J-472	RESISTOR	4.7kΩ,1/6W
R1207	QRD161J-102	RESISTOR,A630MS/MS(C)	1kΩ,1/6W
	QRD162J-102	RESISTOR,J636MS	1kΩ,1/6W
R1208	QRD161J-563	RESISTOR	56kΩ,1/6W
R1209	QRD161J-103	RESISTOR	10kΩ,1/6W
R1210	QRD161J-103	RESISTOR	10kΩ,1/6W
R1211	QRD161J-103	RESISTOR	10kΩ,1/6W
R1212	QRD161J-472	RESISTOR	4.7kΩ,1/6W
R1213	QRD161J-472	RESISTOR,J636MS	4.7kΩ,1/6W
R1214	QRD161J-333	RESISTOR,J636MS	33kΩ,1/6W
R1218	QRD161J-331	RESISTOR,J636MS	330Ω,1/6W
R1225	QRD161J-333	RESISTOR	33kΩ,1/6W
R1226	QRD161J-333	RESISTOR	33kΩ,1/6W
R1227	QRD161J-333	RESISTOR	33kΩ,1/6W
R1228	QRD161J-333	RESISTOR	33kΩ,1/6W
C1201	QEKJ1CM-336	E CAPACITOR,A630MS/MS(C)	33μF,16V
	QETC1CM-336	E CAPACITOR,J636MS	33μF,16V
C1202	QCFB1HZ-104	CAPACITOR	0.1μF,50V
C1203	QETC1HM-106	E CAPACITOR	10μF,50V
C1204	QCSB1HJ-330	CAPACITOR	33pF,50V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C1205	QCSB1HJ-330	CAPACITOR	33pF,50V
C1206	QETC0JM-227	E CAPACITOR	220μF,6.3V
C1207	QCVB1CN-103	CAPACITOR,J636MS	0.01μF,16V
C1210	QCC11EJ-473	CAPACITOR	0.047μF,25V
C1211	QCC11EJ-473	CAPACITOR	0.047μF,25V
L1201	PU48530-101K	COIL	100μH
S1201	PESW0525-02Z	TACT SWITCH,CH + A630MS/MS(C)	
S1202	PESW0525-02Z	TACT SWITCH,CH - A630MS/MS(C)	
S1205	PESW0525-02Z	TACT SWITCH,PAUSE	
S1206	PESW0525-02Z	TACT SWITCH,REC/ITR	
S1207	PESW0525-02Z	TACT SWITCH,PLAY	
S1208	PESW0525-02Z	TACT SWITCH,STOP/EJECT	
S1209	PESW0525-02Z	TACT SWITCH,COLOUR SYSTEM A630MS/MS(C)	
S1212	PESW0525-02Z	TACT SWITCH,A DUB J636MS	
S1213	PESW0525-02Z	TACT SWITCH,REVIEW J636MS	
S1216	PESW0525-02Z	TACT SWITCH,JUST REC	
S1217	PESW0525-02Z	TACT SWITCH,FF A630MS/MS(C)	
S1218	PESW0525-02Z	TACT SWITCH,REW A630MS/MS(C)	
DI1201	PEDP0192	FLUORESCENT DISPLAY PANEL,A630MS/MS(C)	
	PEDP0192-02	FLUORESCENT DISPLAY PANEL,J636MS	
HD1	PQM30038-6	LED HOLDER,D1212 J636MS	
HD2	PQ34668	FDP HOLDER(L),DI1201	
HD3	PQ34669	FDP HOLDER(R),DI1201	
CN1201	PEMC1101-113	CONNECTOR,(1-13)MAIN	
CN1202	PEMC0724-006	CONNECTOR,(1-6)SW/JACK A630MS/MS(C)	
	PEMC0724-007	CONNECTOR,(1-7)SW/JACK J636MS	

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REC SAFETY BOARD ASSEMBLY <32>

PW3	PB10973A3	REC SAFETY BOARD ASSEMBLY,J636MS	
	PB10985A3	REC SAFETY BOARD ASSEMBLY,A630MS/MS(C)	
S1241	PESW0589	PUSH SWITCH	
FW1201	PW30101-60AA442	PARALLEL WIRE,REC SAFETY	

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CASSETTE SWITCH BOARD ASSEMBLY <33>

PW4	PB10973A4	CASSETTE SW BOARD ASSEMBLY,J636MS	
	PB10985A4	CASSETTE SW BOARD ASSEMBLY,A630MS/MS(C)	
S1242	PU61320	PUSH SWITCH,CASS SWITCH	
FW1202	PW30101-60AA442	PARALLEL WIRE,CASSETTE SWITCH	

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SW/JACK BOARD ASSEMBLY <36>

PW2	PB10973L2	SW/JACK BOARD ASSEMBLY,J636MS	
	PB10985A2-01	SW/JACK BOARD ASSEMBLY,A630MS/MS(C)	
D1235	1SS133	DIODE,J636MS	
	or MA165	DIODE,J636MS	
	or 1N4148M	DIODE,J636MS	

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
D1236	1SS133	DIODE,J636MS	
	or MA165	DIODE,J636MS	
	or 1N4148M	DIODE,J636MS	
R1230	QRD161J-750	RESISTOR,J636MS	75Ω,1/6W
C1213	QCBB1HJ-561	CAPACITOR,J636MS	560pF,50V
C1214	QCBB1HJ-561	CAPACITOR,J636MS	560pF,50V
C1215	QCBB1HJ-561	CAPACITOR,J636MS	560pF,50V
C1216	QCBB1HJ-561	CAPACITOR,J636MS	560pF,50V
L1203	PU59152-1R8J	COIL,J636MS	1.8μH
L1204	PU59152-1R8J	COIL,J636MS	1.8μH
S1201	PESW0525-02Z	TACT SWITCH,TV PROG + J636MS	
S1202	PESW0525-02Z	TACT SWITCH,TV PROG - J636MS	
S1203	PESW0525-02Z	TACT SWITCH,OPERATE	
S1209	PESW0525-02Z	TACT SWITCH,COLOUR SYSTEM J636MS	
S1210	PESW0525-02Z	TACT SWITCH,TIMER	
J1201	PEMC1063-04	PIN JACK(SW),VIDEO J636MS	
J1202	PEMC1063-03	PIN JACK(SW),AUDIO L J636MS	
J1203	PEMC1063-02	PIN JACK(SW),AUDIO R J636MS	
CN1203	PEMC0723-006	CONNECTOR,(1-6)DISPLAY A630MS/MS(C)	
	PEMC0723-007	CONNECTOR,(1-7)DISPLAY J636MS	
CN1204	PEMC1101-107	CONNECTOR,(1-7)MAIN J636MS	

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PDC BOARD ASSEMBLY <70>

PW5	PB10973H5	PDC BOARD ASSEMBLY,J636MS	
	PB10985J5	PDC BOARD ASSEMBLY,A630MS/MS(C)	
IC1901	MV1822	IC	
Q1901	DTC144ES	TRANSISTOR	
R1902	QRD161J-472	RESISTOR	4.7kΩ,1/6W
R1903	QRD161J-221	RESISTOR	220Ω,1/6W
R1904	QRD161J-221	RESISTOR	220Ω,1/6W
R1908	QRD161J-473	RESISTOR	47kΩ,1/6W
R1909	QRD162J-221	RESISTOR	220Ω,1/6W
C1901	QCSB1HJ-560	CAPACITOR	56pF,50V
C1902	QCSB1HJ-560	CAPACITOR	56pF,50V
C1904	QFV21HJ-184	F CAPACITOR	0.18μF,50V
C1906	QFV21HJ-184	F CAPACITOR	0.18μF,50V
C1908	QCVB1CN-103	CAPACITOR	0.01μF,16V
C1909	QEKJ1CM-476	E CAPACITOR	47μF,16V
C1914	QFV21HJ-103	F CAPACITOR	0.01μF,50V
C1915	QCSB1HJ-680	CAPACITOR	68pF,50V
LC1901	PELN1226-03Z	NOISE FILTER	
LC1902	PU59736-103	N FILTER	
LC1903	PELN1226-03Z	NOISE FILTER	
LC1904	PELN1226-03Z	NOISE FILTER	
LC1906	PELN1226-03Z	NOISE FILTER	
△ X1901	PEVB0551	CRYSTAL RESONATOR	
SD1	PU61069-1-2	SHIELD CASE	
SD2	PU61070	SHIELD COVER	
SD3	PU61071	SHIELD PLATE	
CN1901	PEMC0713-108	CONNECTOR,(1-8)MAIN	

SECTION 6
TECHNICAL INFORMATION

6.1 SYSCON CIRCUIT

6.1.1 Syscon CPU pin function(IC701) 1/2

PIN NO.	LABEL	IN/OUT	NOTE
1	A. LVL. R	IN	AUDIO INDICATOR LEVEL INPUT(Rch)
2	A. LVL. L	IN	AUDIO INDICATOR LEVEL INPUT(Lch)
3	IF AGC	IN	IF AGC DETECT
4	VIDEO ENV	IN	AUTO TRACKING DATA(AVRG VOLTAGE OF PB LEVEL INPUT)
5	AVSS	-	GND
6	TEST	-	GND
7	X2	-	TIMER CLOCK(32.768KHz)
8	X1	-	TIMER CLOCK(32.768KHz)
9	VSS	-	GND
10	OSC1	IN	SYSTEM CLOCK(10MHz)
11	OSC2	OUT	SYSTEM CLOCK(10MHz)
12	RESET	IN	RESET AT CONNECT VCR TO AC
13	(NMI)	-	NC
14	STTS	IN	LEADER TAPE DETECT(DETECT ON:L)
15	SHUTTLE	IN	SHUTTLE SWITCH
16	JSA	IN	JOG DIAL PULSE INPUT(A)
17	JSB	IN	JOG DIAL PULSE INPUT(A)
18	END. S	IN	TRAILER TAPE DETECT(DETECT ON:L)
19	SYNC DET	IN	SYNC DETECT(NO SYNC:H)
20	LOCK DET	IN	TUNING LOCK CHECK
21	R. PAUSE	IN	REMOTE PAUSE CONTROL(PAUSE ON:L)
22	TU FG	IN	TAKE-UP REEL ROTATION DET/TAPE REMAIN
23	SUP FG	IN	SUPPLY REEL ROTATION DET/TAPE REMAIN
24	PDC	OUT	PROGRAMME DELIVERY CONTROL
25	EE	OUT	EE MODE:L
26	AUX	OUT	AUX MODE:L
27	NC	-	NC
28	PLL DATA	OUT	TUNING IC DATA
29	PLL CE	OUT	TUNING IC CHIP ENABLE
30	MODE1	-	MODE1 SELECT
31	LCM3	OUT	LOADING MOTOR DRIVE(3)
32	CH+/DATA	OUT	IIL LOGIC CTL DATA
33	REC ST(H)	OUT	REC START:H
34	B/W	OUT	BLACK/WHITE SWITCH DETECT
35	V. REC(H)	OUT	VIDEO REC MODE:H
36	I2C SCL	OUT	NICAM DATA TRANSFER CLOCK
37	I2C SDA	OUT	NICAM CONTROL DATA OUTPUT
38	I. EXP CLK	OUT	EXPANDER IC(IC706) TRANSFER CLOCK
39	I. EXP DATA	OUT	EXPANDER IC(IC706) SERIAL DATA
40	RAE	OUT	REMOTE PAUSE CONTROL OUTPUT

Table 6-1-1 SYSCON CPU pin function(1/2)

6.1.2 Syscon CPU pin function(IC701) 2/2

PIN NO.	LABEL	IN/OUT	NOTE
41	DOC OPT	IN	DOCTOR PROGRAM DETECT
42	MODE2	OUT	MODE2 SELECT
43	D.MUTE	OUT	DEMODULATOR AUDIO MUTE CONTROL(MUTE ON:H)
44	OSD CE	OUT	ON SCREEN IC CHIP ENABLE
45	VPCTL	OUT	V.PULSE ADDITION TIMING CONTROL
46	EXP DATA	OUT	EXPANDER IC(IC705) DATA OUTPUT
47	COM CLOCK	OUT	MEMORY IC DATA TRANSFER CLOCK
48	H REC ST	OUT	HiFi AUDIO REC START:L
49	-	-	GND
50	RC IN	IN	REMOTE CONTROL DATA INPUT
51	A.MUTE	OUT	AUDIO MUTE CONTROL(MUTE ON:H)
52	CTL C/D	IN	CTL PULSE INPUT(MODE DETECT/BLANK PORTION DET)
53	P.MUTE	OUT	PICTURE MUTE CONTROL(MUTE:L)
54	V.UP	OUT	CAPSTAN MOTOR VOLTAGE UP
55	CAP REV	OUT	CAPSTAN MOTOR CONTROL(FWD:H/REV:L)
56	DUTY I/O	IN/OUT	IN/OUT INDEX DATA CONTROL
57	S-OUT	OUT	ON SCREEN CONTROL DATA
58	S-IN	IN	ON SCREEN/FDP CONTROL DATA
59	S-CLK	OUT	DATA TRANSFER CLOCK
60	H DATA	OUT	VIDEO IC CONTROL DATA
61	STB	OUT	CLOCK OUTPUT PERMISSION
62	H CLK	OUT	VIDEO IC DATA TRANSFER CLOCK
63	VCC	-	SYSTEM POWER
64	S.DATA	OUT	SERVO IC CONTROL DATA
65	SERVO	OUT	CAPSTAN MOTOR CONTROL(SERVO:L/SYSCON:H)
66	PAUSE(L)	OUT	CAPSTAN MOTOR CONTROL(PAUSE:L)
67	CTL CLOCK	IN	INDEX CONTROL
68	LCM1	OUT	LOADING MOTOR DRIVE(1)
69	CAP FG	IN	TAPE SPEED DETECT/BACK SPACE COUNT
70	LCM2	OUT	LOADING MOTOR DRIVE(2)
71	D.FF	IN	DRUM ROTATION DETECT/REC TIMING CONTROL
72	AVCC	-	SYSTEM POWER(for ANALOG)
73	AUDIO ENV	IN	AUTO TRACKING DATA(AVRG VOLTAGE OF PB LEVEL INPUT)
74	PROTECT	IN	SWD5V/12V DETECT
75	DRUM V	OUT	DRUM MOTOR VOLTAGE CONTROL
76	CAP V	OUT	CAPSTAN MOTOR VOLTAGE DETECT
77	6.5H DET	IN	PB SWITCHING POINT ADJUST PULSE
78	DV DET	IN	DRUM DRIVE VOLTAGE DET
79	P.DOWN	IN	POWER DOWN DETECT(POWER DOWN:L)
80	S CURVE	IN	TUNING CHECK

Table 6-1-2 SYSCON CPU pin function(1/2)

E.&O.E. No. 82555